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# **Avian Analysis of LCTA Special Use Plot Data: West Point Military Academy**

by  
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The Land Condition Trend Analysis (LCTA) program is the Army's standard for land inventory and monitoring, using standardized methods of natural resources data collection, analyses, and reporting designed to meet multiple goals and objectives. This report presents the results of a study done for West Point in conjunction with the Army Environmental Center's (AEC) Conservation Assistance Program

(CAP). Four years of bird data were analyzed for LCTA special use plots during 1992, and 1995 through 1997. The information and techniques presented in this report are intended to provide land managers the ability to more effectively use the LCTA special use plot bird data being collected on their installation.

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## Foreword

This study was conducted for the U.S. Military Academy (USMA), West Point Environmental Office, Natural Resources Branch, under Military Interdepartmental Purchase Request (MIPR) No. W81EWF80489293 and the Conservation Assistance Program (CAP) tracking number 0697996-003. The technical monitor was Ms. Catherine Coleman, DHPW.

The work was performed by the Natural Resource Assessment and Management Division (LL-N) of the Land Management Laboratory (LL), U.S. Army Construction Engineering Research Laboratories (USACERL). The USACERL principal investigator was Dr. Alison Hill. Dr. John T. Bandy is Acting Operations Chief, CECER-LL. Dr. William D. Severinghaus is the responsible Technical Director. The USACERL technical editor was Gloria J. Wienke, Technical Resources.

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### **Distribution**

# 1 Introduction

## Background

The U.S. Army is currently responsible for managing 5 million hectares (12.4 million acres) on approximately 120 military installations throughout the United States. More than 50 military installations and training areas in the United States and Germany have implemented the Land Condition Trend Analysis (LCTA) program (Tazik et al. 1992).

The U.S. Army Construction Engineering Research Laboratories (USACERL) developed LCTA as a means to inventory and monitor natural resources on military installations. The LCTA program uses standardized methods of nature resource data collection, analysis, and reporting designed to meet the need for natural resources management and land stewardship (Tazik et al. 1992).

LCTA surveys use two types of plots: core and special use. Core plots are located in an objective, stratified manner to ensure that the data are representative of the installation (Warren et al. 1990). These plots are used to evaluate the condition of natural resources on the installation and serve as a basis for the national inventory. Special use plots are used for installation-specific issues that are not sufficiently covered by core plots. These plots can be allocated in any manner deemed appropriate by the installation, and are used to supplement baseline monitoring (Price et al. 1995).

The Environmental Office at West Point Military Academy began collecting LCTA special use plot data in 1992. However, only two plots (101 and 102) were sampled during that year. In 1995, nine additional special plots were allocated and Plot 102 was eliminated. Plots 101, and 103 through 111 have been sampled annually since 1995. West Point is unique in that one individual, Mr. Tom Miller, collected all the bird data from the LCTA core and special use plots.

Ms. Catherine Coleman of the Environmental Office at West Point contacted Mr. Steve Getlein, the Conservation Assistance Program (CAP) manager, at the U.S. Army Environmental Center, and submitted CAP requests for assistance with analyzing their LCTA bird data. West Point had particular interest in obtaining

general trend information on the stability of the local bird populations. The first CAP request analyzed bird data from LCTA core plots and is summarized in Schreiber and Hill (1998). The second request analyzed the bird data from the LCTA special use plots and is summarized in this report.

## **Objective**

The objective of this report was to produce summary tables of West Point's bird data from their LCTA special use plots.

## **Approach**

Once the project was assigned on 5 March 1998, the USACERL and West Point investigators held a conference call to discuss the work and come to agreement on the desired product: a report containing digital summary tables of the LCTA special use plot bird data. The following tasks were completed in response to West Point's CAP request:

- (1) Verified and fixed all errors within the 1992, and 1995 - 1997 bird data.
- (2) Entered the revised bird data into Quest for analysis.
- (3) Analyzed West Point's special use plot bird data.
- (4) Provided West Point specific guild information regarding their special use plot bird species.
- (5) Prepared a Final report for West Point.
- (6) Sent West Point electronic files of the revised data and output and a hard copy of the final report.

## **Scope**

This report summarizes West Point's bird data collected by using documented LCTA data collection techniques. It provides summaries of LCTA special use plot data from 1992, and 1995 through 1997.

## **Mode of Technology Transfer**

West Point can use the compiled summary tables to support land management decisionmaking and to support the required documentation. This documentation includes, but is not limited to annual installation reports, the Integrated Natural

Resource Management Plan (INRMP), and National Environmental Policy Act (NEPA) documents. All electronic files of the raw and compiled data will be transferred to West Point.



## 2 Terminology

The variables used in the summary tables are defined below.

**Ave FO birds** — The average number of flyovers for each LCTA plot.

**Ave site birds** — The average number of birds recorded within the confines of the LCTA plot boundary.

**Ave tot birds** — The average number of birds recorded for each LCTA plot; includes both flyover and site species.

**Distinct species** — The term distinct species is synonymous with unique species. A total of 83 distinct onsite species were identified on West Point LCTA special use plots.

**FO birds** — Flyovers are birds that were observed outside the designated LCTA plot boundary.

**FO plots** — The number of LCTA plots in which flyover species were recorded outside the plot boundary or flying overhead.

**Occurrence** — Occurrence refers to each time a species was recorded on an LCTA plot. There was a total of 1,184 individual species occurrences, including flyovers, for all West Point LCTA special use plots.

**Period** — Time of day in which the survey was conducted.

AM - morning

PM - evening

**Plotid** — The plot number associated with each West Point LCTA wildlife plot.

**Site birds** — The total number of birds identified within the LCTA plot boundary.

**Site plots** — The total number of LCTA plots on which species were recorded.

**Total birds** — The total number of birds recorded on West Point LCTA plots; includes both flyovers and site species.

**Transect** — Portion of the line transect in which species were recorded.

Line Out - Starting at the 0 m of the transect and walking to the 100 m end.

End Point - The end of the 100-m transect.

Line In - Walking from the end point back to the 0 m point.

**Vertid** — LCTA wildlife codes were established in 1991 by researchers from USACERL (Kowalski and Whitworth 1991) and based on the scientific names from the 1987 *Checklist of Vertebrates* (Banks, McDiarmid, and Gardner 1987). Each code consists of the first two letters of the genus and the first two letters of the specific epithet. If duplicate codes exist, ascending numbers, starting with 1, follow the four-letter code.

The following variables were used in the tables to describe guild information for the 83 distinct West Point bird species identified on LCTA special use plots.

**Food type** — The primary food eaten by West Point birds.

- Aquatic Inverts - Includes aquatic insects, crayfish, shrimp, snails, bivalves, etc.
- Fruit - Includes fruit and berries.
- Greens - May include leafy parts of both aquatic and terrestrial plants, and bulbs.
- Insects - May include insects, spiders, mites, land snails, slugs, worms, millipedes, sowbugs, etc.
- Seeds - Includes grains, sunflower seeds, conifer seeds, etc.
- Small Mammals - Any animal of the class Mammalia. Includes shrews, ground squirrels, rabbits, but most often rodents.

**General Habitat** — General habitat is a category that is often quite difficult to quantify. Many species frequent several habitat types and are not confined to just one. Therefore, habitat classifications within the database should be viewed cautiously.

- Forest - An extensive concentration of trees and related vegetation. Includes sparsely wooded areas, densely wooded areas, and pinon-juniper associations.
- Forest Edge - The transitional area where a forest ends and another distinct habitat begins.
- Freshwater - Includes areas such as lakes, ponds, rivers, and streams.

- **Grassland** - An area of land on which the natural dominant plant forms are grasses and forbs. Areas with scattered trees and/or snags are included in this community type.
- **Riparian** - An area located along the bank of a natural watercourse (as a river) or sometimes of a lake or tidewater.
- **Shoreline** - The strip of land where a body of water and the shore meet.
- **Shrubland** - An area of land on which the natural dominant plant forms are shrubs (a low, usually several-stemmed woody plant).
- **Swamp/Marsh** - A wet, spongy land, saturated and sometimes partially or intermittently covered with water. Also includes tracts of soft, wet land, typically characterized by grasses and cattails.

**Mated status** — The categories used to describe the mated status of West Point bird species.

- Female only
- Flock
- Non-singing male
- Not recorded
- Pair (adult male and female)
- Singing male
- Unknown sex

**Neo status** — Neotropical migrant status of West Point species based on the following classification system (Partners in Flight 1991).

- A "True" neotropical migrants; breed in North America and winter south of the United States.
- B Generally breed and winter in North America, but some populations winter south of the United States.
- R Resident species (i.e., non-neotropical migrant species).

**Nest location** — The location where West Point bird species nest.

- **Ground** - Includes nests placed among the roots, or in niches among the roots of fallen trees, among tules and reeds (in marshes), among grasses, on bare rock, or simply scraped in the dirt or sand.
- **Man-made Structure** - Includes nests placed among any man-made structure (bridge, barn, etc.).
- **Reed** - Nest built within and attached to reeds.
- **Shrub** - Includes nests placed within any multi-stemmed woody plant that does not have a distinct single trunk extending several feet between the ground and the lowest branching point.

- Snag - Includes nests placed in a standing dead tree. Also used for species that use cavities in dead and live trees more/less indiscriminately.
- Woody Lower Canopy - Includes nests placed in the lower canopy of deciduous or coniferous trees.
- Woody Upper Canopy - Includes nests placed in the upper canopy of deciduous or coniferous trees.

**Nest type** — The type of nest that is constructed by West Point bird species.

- Cavity - Eggs placed in a cavity that has been excavated (woodpeckers) or in a natural cavity found in a dead or dying tree. Sometimes a cup or other structure is built within.
- Cup - A sometimes bulky, but always deep depression, with a hemispherical inside and a rim height several times the diameter of the eggs.
- Oven - Oven-shaped (roofed or arched) nest on the ground.
- Parasitic - No nest is constructed. Eggs are deposited in the nest of another species.
- Pendant - An elongate saclike nest suspended from a branch.
- Platform - A structure in a tree, on a cliff, or providing a dry place above marshy ground or water, usually big enough for the bird to land on, with or without a distinct depression to hold the eggs. Typical of many raptors and wetland birds.
- Saucer - A shallow cup with the height of the rim not more than twice the diameter of the eggs. Also a flattened nest of pliable vegetation as used by some wetland birds.
- Scrape - A simple depression usually with a rim sufficient to prevent eggs from rolling away. The scrape nest of many duck species are almost bowl-shaped. Occasionally with lining added.

**Substrate** — The location where West Point bird species feed.

- Air - Foraging done in the air. Includes foraging techniques such as: Aerial Foraging, Aerial Pursuit, Hawker, Hover & Pick, Hover Gleaner, and Piracy.
- Bark - Foraging done primarily on the bark of trees. Includes: Bark Gleaner.
- Foliage - Foraging done primarily on foliage. Includes: Foliage Browser and Foliage Gleaner.
- Ground - Foraging done primarily on the ground. Includes: Digging, Ground Gleaner, High Patrol, Hover & Pounce, Low Patrol, Piracy, Scavenger, and Swooper.
- Water - Foraging done primarily on or in the water. Includes: Ambusher, Dabbler, High Dives, Prober, Skimmer, Surface Dips, and Surface Dives.

**Technique** — The technique used by West Point bird species to obtain their food.

- Aerial Pursuit - Chasing or catching birds in midair, stooping (dropping on flying birds from above, killing them in midair with a blow from the talons), or snatching them from their perches.
- Bark Gleaner - Gleaning from tree trunks and branches. Includes excavating and drilling into bark.
- Dabbler - Floating on the surface in shallow water, pivoting headfirst downward while raising hind-quarters above the water to reach submerged plants or animals on or near the substrate.
- Foliage Browser - Browsing tender shoots, twigs, and leaves of trees and shrubs for food.
- Foliage Gleaner - Gleaning from foliage and occasionally from branches. Take invertebrates and/or fruit from the vegetation, not from the surface of the ground.
- Ground Gleaner - Picking up items from the surface of soil, turf, sand, etc.
- Hawker - Sallies from perch on short flights to capture flying insects.
- High Patrol - Soaring at high altitudes in search of carrion or prey.
- Hover Gleaner - Taking nectar, insects, or berries from plants above the ground while hovering.
- Low Patrol - Seeking prey in a low searching flight.
- Scavenger - Feeding on carrion, refuse, or material left unconsumed by other organisms.
- Surface Dives - Floating and then diving under water using feet and/or wings in search of prey.
- Swooper - Snatching prey from the ground in talons after a gliding descent from perch with wings spread.

### 3 Methodologies

The bird data used in this analysis was collected from West Point LCTA special use plots during the 1992, and 1995 through 1997 field seasons by Mr. Tom Miller, research specialist. Survey methodologies followed similar LCTA protocols (Tazik et al. 1992).

#### Bird Survey Methodologies

LCTA special use plots can be allocated in any manner deemed appropriate by the installation, but generally follow the modified point-count technique, as used when sampling core plots. Each plot is surveyed once in the morning and once in the evening by slowly walking the 100-m transect in 6 minutes and recording all birds seen and heard within 100 m of the plot (Line Out). Upon reaching the end of the transect, the observer stops and records all birds seen and heard for 8 minutes within 100 m of the end (End Point). The observer then walks another 6 minutes back to the starting point, again recording all birds seen and heard within 100 m of the plot (Line In). Species observed outside the plot limits and flyover species are also recorded on the standard LCTA Bird Survey Data Form.

Surveys are typically conducted on relatively calm, rainless days, within a 2- to 4-week period that corresponds to the breeding season. Morning surveys are conducted between ½ hour before and 4 hours after sunrise; evening surveys are conducted 4 hours before sunset. All birds observed, with common name, LCTA species code, and total number for each species are recorded within each segment of the survey, along with corresponding codes for mated status.

#### Data Entry

The 1992, and 1995 through 1997 special use plot bird data was entered into SQLBase format from standard LCTA paper data forms.

## Error Checking

The paper and electronic data files were checked for a number of common errors, which were corrected in the database. LCTA species codes were developed for all wildlife species, and should be used when collecting any LCTA-related data. However, errors may still arise. The various types of errors that may be encountered include: (1) entering an invalid species code (i.e., the species code does not correspond to a valid species, MYMU vs. HYMU), (2) entering the wrong species code for a particular species (i.e., the species code pertains to an entirely different species, VIOL vs. PIOL), (3) omitting the numerical value at the end of certain species codes (e.g., COVI vs. COVI1), or (4) entering an incorrect numerical value (e.g., SPPA1 vs. SPPA2).

Some errors can be fixed easily (e.g., correcting for invalid species codes); however, other errors involve cross-referencing back to the original data sheets and checking the species code against the common name. The species code must not only be correct, but legible, because the individual entering the data typically relies solely on the species code. Only when error-checking procedures are done, will the individual cross-reference the code to the common name, and correct for these inconsistencies.

## 4 West Point Special Use Plot Summary Data

In 1992, only two special use plots (plots 101 and 102) were allocated. However, from 1995 through 1997, a total of ten special use plots were sampled annually. These include plots: 101, 103, 104, 105, 106, 107, 108, 109, 110, and 111. Plot 102 was not sampled after 1992.

### Annotated LCTA Bird Species Checklist

Appendix A/Table A lists, by common name, the 83 distinct bird species recorded on West Point LCTA special use plots. The table includes the scientific name, LCTA code, and the total number of individuals recorded for each year. The Canada Goose had the most occurrences (63). However, the Canada Goose was only recorded from two plots during 1997, and should probably have been recorded as flyovers. The American Robin was the second most frequently observed species recorded on West Point special use plots, with 61 occurrences (5.4%), followed by the Scarlet Tanager with 5.2% of the total occurrences, and the Red-eyed Vireo with 4.8% of the total occurrences.

Nine species were identified on special use plots that were not recorded from core plot data (Schreiber and Hill 1998). These species include: Bobolink (6 occurrences), European Starling (5 occurrences), Great Blue Heron (2 occurrences), Fish Crow (1 occurrence), Alder Flycatcher (1 occurrence), Eastern Meadowlark (1 occurrence), Great Horned Owl (1 occurrence), Tennessee Warbler (1 occurrence), and the American Woodcock (1 occurrence).

### LCTA Plots Associated With Each Bird Species

Appendix B/Table B lists all LCTA special use plots in which a particular species was recorded, and the total number of individuals found on each plot. Several species were identified on all LCTA special use plots. These species include: Brown-headed Cowbird, Great-crested Flycatcher, and the Red-eyed Vireo. Additional species occurring on 10 of the 11 LCTA special use plots include Norther Flicker,



Blue Jay, Eastern Wood Pewee, American Robin, Scarlet Tanager, Wood Thrush, Rufous-sided Towhee, and the Black-and-white Warbler.

### **Bird Species Associated With Each LCTA Plot**

Appendix C/Table C lists all avian species recorded for each of the LCTA special use plots, and the total number of individuals for each species within that plot. The number of species recorded on individual plots ranged between 20 species (plot 102) and 47 species (plot 101), with the mean being 31 species per plot. However, plot 102 was sampled only in 1992, and was not sampled during 1995 through 1997.

### **Guild Associations**

Appendix D/Table D contains generic guild information for the 83 West Point bird species that were identified on special use plots, with common name, scientific name, LCTA code, neotropical migrant status, nest location, nest type, food type, food substrate, feeding technique, and general habitat. This information was derived from a comprehensive list containing guild data for all bird species found within the United States (Schreiber and Whitworth 1998).

### **Installation Information**

Table E1 in Appendix E lists the general information for West Point special use plot bird data. All (100%) of the LCTA special use plots had species recorded within the plot boundary, while 63.6% had flyover species. In 1996, 1 Warbler and 1 Waterthrush were recorded, but not identified to the species level. Therefore, the number of site birds, and the number of occurrences will be slightly higher in 1996 than that reported in Tables A, B, C, and D, where these two individuals were excluded from analysis.

Table E2 is a similar division of the information presented in Table E1, except it presents the information by year. A total of 83 distinct species (1,137 occurrences) were recorded as site species. These include: 33 species (104 occurrences) in 1992, 63 species (288 occurrences) in 1995, 52 species (54 - 2 unknowns, 281 occurrences) in 1996, and 67 species (464 occurrences) in 1997.

Table E3 displays the installation information by year and period (i.e., time of day). The importance of dividing the information by period is to gain insight on which

sampling time is best. Sampling in the morning clearly provides a much higher yield when looking at the average number of both total and site birds, within all years. However, generally speaking, time of day did not seem overly important when identifying flyover species.

Table E4 lists the installation information by transect. The data indicate that of the three transect segments (Line Out, End Point, and Line In), more species are being identified during the Line Out.

Table E5 lists the installation information by mated status. The singing male was the most frequently recorded category.

### **Installation Information by Vegetation Type**

Vegetation types (Appendix F, Table F1) were derived from the New York Natural Heritage (NYNH) Communities map (Reschke 1990) and LCTA Plot Location map, created by West Point personnel. Information describing the ecological communities or West Point is contained in Schreiber and Hill (1998).

West Point's LCTA special use plots represent five vegetative categories. These categories include: Appalachian Oak-Hickory (5 plots), Burn Barren (1 plot), Hemlock-Hardwood Swamp (1 plot), Hemlock-Northern Hardwood Forest (1 plot), and Successional Old Field (3 plots) (Table F2). Most vegetative categories had very small sample sizes; subsequent analyses should be viewed with caution.

Table F3 lists the vegetation types for each year, with the total number of birds observed within each category.

Table F4 divides the vegetation types for each year, by period, with the total number of birds associated with each. With few exceptions, more birds were recorded in morning site counts than evening counts.

Table F5 divides the vegetation types by transect, with the total number of birds associated with each. With few exceptions, more birds were recorded during the Line Out than during the End Point or Line In, as evidenced in the average number of site birds.

Table F6 lists the vegetation types by mated status for each year, with the total number of birds associated with each. The singing male was the most frequently recorded category.

Table F7 separates the West Point vegetation types by species recorded within each category. The number of species identified within each vegetative category is provided below. Small sample sizes should be viewed with caution.

- Burn Barren - 25 species (1 plot)
- Hemlock-Hardwood Swamp - 36 species (1 plot)
- Hemlock-Northern Hardwood Forest- 38 species (1 plot)
- Oak-Hickory - 59 species (5 plots)
- Successional Old Field - 64 species (3 plots)

## Guild Summaries

Information pertaining to the guild summary tables in Appendix G is based on a report by Schreiber and Whitworth (1998) that documents an LCTA database update that provides selected ecological attributes for 676 bird species occurring within the continental United States.

Table G1 lists the West Point bird species by neotropical status: Class A, Class B, and Resident species. A large percentage of birds that occur on West Point special use plots were identified as neotropical migrants. The annual percentages of neotropical migrant (Class A and Class B) species and species occurrences, are identified below.

Year	% of species that are migrants	% of species occurrences that are migrants
1992	80.0	72.9
1995	76.7	84.9
1996	78.0	84.8
1997	74.6	77.2

Table G2 divides West Point's bird species into areas in which nesting occurs. Seven nesting locations were identified. Woody upper canopy nesters were the most common (32.2%), followed by ground nesters (21.2%), woody lower canopy nesters (19.0%), and those nesting in shrubs (17.5%).

Table G3 divides West Point's bird species by the type of nest that is constructed. Eight nest types were identified. According to the data, the majority of West Point birds make a cup-type nest (63.9%), followed by cavity nesters (12.4%).

Table G4 lists the bird species by the types of foods used by each. Six food types were identified. According to the data, nearly 88.0% of the birds that were identified on West Point special use plots feed on insects.

Table G5 lists the bird species by feeding substrate categories. Five distinct feeding substrates were identified. According to the data, almost 41% of West Point bird species identified on special use plots, forage on the ground, followed by those that feed on foliage (25.2%), and in the air (20.0%).

Table G6 divides West Point's bird species by foraging technique categories. Thirteen foraging techniques have been identified from the birds occurring on West Point's special use plots. According to the data, the majority of birds were ground gleaners (37.5%), foliage gleaners (15.9%), and hover gleaners (12.5%).

Table G7 lists the species by habitat types. Eight distinct habitat types have been identified from the birds occurring on West Point's special use plots. According to the data, the majority of birds preferred forested areas (58.2%), forest edge (16.0%), and shrubland areas (7.2%).

### **Guild Information by Vegetation Type**

Table H1 lists the vegetation types by neotropical migrant status. The overall percentage of neotropical migrant (Class A and Class B) species occurrences within each vegetation category are listed below.

Burn Barren - 85.5%

Hemlock-Hardwood Swamp - 89.1%

Hemlock-Northern Hardwood Forest - 84.5%

Oak-Hickory - 82.3%

Successional Old Field - 71.7%

Table H2 lists West Point bird species by nest location, with the total number of individuals within each vegetation type, by year.

Table H3 lists the bird species by nest type, with the total number of individuals within each vegetation type, by year.

Table H4 lists the bird species, by food type, with the total number of individuals within each vegetation category, by year.

Table H5 summarizes the bird species, by feeding substrate, with the total number of individuals within each vegetation category, by year.

Table H6 summarizes West Point bird species, by foraging technique, with the total number of individuals within each vegetation category, by year.

Table H7 summarizes West Point bird species, by habitat type, with the total number of individuals within each vegetation category, by year.

## 5 Conclusions

A total of 83 avian species (1,137 occurrences) were identified at the U.S. Military Academy during the summers of 1992, and 1995 through 1997, from LCTA special use plots. The total number of species and occurrences, by year, are as follows: 33 species (104 occurrences) in 1992, 63 species (288 occurrences) in 1995, 54 species (281 occurrences) in 1996, and 67 species (464 occurrences) in 1997.

Nine species were identified on special use plots that were not recorded from core plots. These species include: Bobolink, European Starling, Great Blue Heron, Fish Crow, Alder Flycatcher, Eastern Meadowlark, Great Horned Owl, Tennessee Warbler, and the American Woodcock.

Regarding overall numbers, the Canada Goose was the most frequently observed species on West Point special use plots, with 63 occurrences (5.5%), followed by the American Robin (5.4%), Scarlet Tanager (5.2%), and the Red-eyed Vireo (4.8%).

The number of species recorded on individual plots ranged between 20 species (plot 102) and 47 species (plot 101), with the average being 31 species per plot. However, plot 102 was sampled only in 1992. Species identified on all special use plots include: Brown-headed Cowbird, Great-crested Flycatcher, and the Red-eyed Vireo.

Five vegetative categories were recognized from LCTA special use plots on West Point. These include: Appalachian Oak-Hickory, Burn Barren, Hemlock-Hardwood Swamp, Hemlock-Northern Hardwood Forest, and Successional Old Field.

Approximately 72.3% of the species identified from West Point special use plots are categorized as neotropical migrants (Class A and Class B), while 27.7% are considered Resident species. The percentage of neotropical migrants per year ranged between 76.7% in 1995 to 80.0% in 1992.

Guild summaries by nesting location, nest type, food type, foraging substrate, foraging technique, and habitat type for bird species occurring on LCTA special use plots are as follows. Of the seven nesting locations, most species nested in the woody upper canopy (32.2%), on the ground (21.2%), in the woody lower canopy (19.0%), or in shrubs (17.5%). Of the eight nest types, the majority of birds make a

cup-type nest (63.9%), or a cavity nest (12.4%). Of the six food types used, nearly 88% of all species fed on insects. Of the five feeding substrates, nearly 41% of all species fed on the ground, on foliage (25.2%), or in air (20.0%). Of the thirteen foraging techniques, most species were ground gleaners (37.5%), foliage gleaners (15.9%), or hover gleaners (12.5%). Of the eight habitat types, most species preferred forested areas (58.2%), forest edge (16.0%), or shrubland areas (7.2%).

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## **Appendix A: West Point Species Checklist**

# Species Checklist

Table A. Annotated LCTA bird species checklist for West Point special use plots, with total number of birds per year.

Common Name	Scientific Name	Vertid	1992	1995	1996	1997	Total
Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	AGPH	16	6	3	8	33
Bluebird, Eastern	<i>Sialia sialis</i>	SISI	0	3	0	2	5
Bobolink	<i>Dolichonyx oryzivorus</i>	DOOR	2	1	2	1	6
Bunting, Indigo	<i>Passerina cyanea</i>	PACY	0	2	1	3	6
Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	0	3	0	2	5
Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	2	4	4	11	21
Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	0	4	5	7	16
Cowbird, Brown-headed	<i>Molothrus ater</i>	MCAT	1	9	8	17	35
Creeper, Brown	<i>Carthia americana</i>	CEAM	0	1	0	0	1
Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	18	4	7	5	34
Crow, Fish	<i>Columbina passerina</i>	COOS	0	0	1	0	1
Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	1	2	1	0	4
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	COAM	0	1	0	0	1
Dove, Mourning	<i>Zenaida macroura</i>	ZEMA	2	0	0	0	2
Flicker, Northern	<i>Colaptes auratus</i>	COAU	4	10	10	5	29
Flycatcher, Acadian	<i>Empidonax virens</i>	EMVI	0	1	0	0	1
Flycatcher, Alder	<i>Empidonax alnorum</i>	EMAL	1	0	0	0	1
Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	1	8	9	11	29
Gnatcatcher, Blue-gray	<i>Poliopitila caerulea</i>	POCA	0	6	5	5	16
Goldfinch, American	<i>Carduelis tristis</i>	CATR	1	5	4	10	20
Goose, Canada	<i>Branta canadensis</i>	BRCA1	0	0	0	63	63
Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	0	4	2	2	8
Grosbeak, Rose-breasted	<i>Phaeucticus ludovicianus</i>	PHLU	0	4	4	2	10
Grouse, Ruffed	<i>Bonasa umbellus</i>	BOUM	0	1	0	0	1
Hawk, Broad-winged	<i>Buteo platypterus</i>	BUPL	0	0	0	2	2
Hawk, Red-tailed	<i>Buteo jamaicensis</i>	BUJA	0	1	0	0	1
Heron, Great Blue	<i>Ardea herodias</i>	ARHE	0	0	0	2	2
Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	2	6	8	8	24
Killdeer	<i>Charadrius vociferus</i>	CHVO	2	1	0	1	4
Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	0	0	1	3	4
Mallard	<i>Anas platyrhynchos</i>	ANPL	2	0	0	1	3
Meadowlark, Eastern	<i>Sturnella magna</i>	STMA2	0	0	0	1	1
Mockingbird, Northern	<i>Mimus polyglottos</i>	MIPO	2	1	2	1	6
Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	0	4	4	11	19
Oriole, Northern	<i>Icterus galbula</i>	ICGA	0	12	10	22	44
Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	0	5	10	11	26
Owl, Barred	<i>Strix varia</i>	STVA	2	1	0	0	3
Owl, Great Horned	<i>Bubo virginianus</i>	BUVI	0	1	0	0	1
Parula, Northern	<i>Parula americana</i>	PAAM	0	0	1	0	1
Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	1	15	8	15	39
Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	0	4	0	2	6
Redstart, American	<i>Setophaga ruticilla</i>	SERU1	2	4	9	12	27
Robin, American	<i>Turdus migratorius</i>	TUMI	9	15	17	20	61
Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	0	12	9	9	30
Sparrow, Field	<i>Spizella pusilla</i>	SPPU1	0	4	3	8	15
Sparrow, Song	<i>Melospiza melodia</i>	MEME	4	2	4	4	14
Starling, European	<i>Sturnus vulgaris</i>	STVU	5	0	0	0	5
Swallow, Barn	<i>Hirundo rustica</i>	HIRU	0	0	0	2	2
Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	2	18	18	21	59
Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	0	3	1	3	7

# Species Checklist

Common Name	Scientific Name	Vertid	1992	1995	1996	1997	Total
Thrush, Swainson's	<i>Catharus ustulatus</i>	CAUS	0	0	0	1	1
Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	1	8	9	12	30
Titmouse, Tufted	<i>Parus bicolor</i>	PABI	0	5	6	3	14
Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	0	11	11	16	38
Turkey, Wild	<i>Meleagris gallopavo</i>	MEGA	0	0	1	1	2
Veery	<i>Catharus fuscescens</i>	CAFU2	1	5	9	11	26
Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	3	12	18	22	55
Vireo, Solitary	<i>Vireo solitarius</i>	VISO	0	5	3	2	10
Vireo, Warbling	<i>Vireo gilvus</i>	VIGI	2	1	0	1	4
Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	1	4	5	4	14
Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	1	11	7	8	27
Warbler, Blackburnian	<i>Dendroica fusca</i>	DEFU	0	0	0	2	2
Warbler, Black-throated Green	<i>Dendroica virens</i>	DEVI	0	3	0	2	5
Warbler, Blue-winged	<i>Vermivora pinus</i>	VEPI	0	3	1	2	6
Warbler, Canada	<i>Wilsonia canadensis</i>	WICA	0	1	0	0	1
Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	3	3	2	3	11
Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	0	1	2	5	8
Warbler, Golden-winged	<i>Vermivora chrysoptera</i>	VECH	0	0	0	1	1
Warbler, Hooded	<i>Wilsonia citrina</i>	WICI	0	1	4	4	9
Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	0	6	6	9	21
Warbler, Tennessee	<i>Vermivora peregrina</i>	VEPE	0	0	0	1	1
Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	4	4	6	10	24
Warbler, Yellow-rumped	<i>Dendroica coronata</i>	DECO	0	0	0	1	1
Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	0	1	4	2	7
Waxwing, Cedar	<i>Bombycillidae cedrorum</i>	BOCE	0	2	1	10	13
Woodcock, American	<i>Scolopax minor</i>	SCMI	0	1	0	0	1
Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	0	3	1	2	6
Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	1	1	4	2	8
Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	0	1	1	3	5
Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	1	2	0	1	4
Wren, House	<i>Troglodytes aedon</i>	TRAE	0	0	2	0	2
Wren, Winter	<i>Troglodytes troglodytes</i>	TRTR	0	0	0	1	1
Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	4	5	5	9	23
			104	288	279	464	1135

## **Appendix B: Plot Numbers for Each West Point Bird Species**

# Plot Numbers for each Species

Table B. LCTA special use plot numbers associated with each West Point bird species.

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	AGPH	101	16	6	3	5
			106	NR	0	0	3
Bluebird, Eastern	<i>Sialia sialis</i>	SISI	104	NR	3	0	0
			107	NR	0	0	2
Bobolink	<i>Dolichonyx oryzivorus</i>	DOOR	101	2	1	2	1
Bunting, Indigo	<i>Passerina cyanea</i>	PACY	101	0	2	0	2
			105	NR	0	1	1
Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	101	0	1	0	0
			103	NR	0	0	1
			106	NR	1	0	0
			110	NR	1	0	1
Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	101	1	0	1	2
			102	1	0	0	0
			105	NR	1	0	2
			106	NR	1	0	2
			107	NR	1	2	1
			108	NR	0	1	0
			109	NR	0	0	2
			110	NR	1	0	0
			111	NR	0	0	2
Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	103	NR	0	1	1
			104	NR	1	0	2
			105	NR	1	2	0
			106	NR	1	1	2
			107	NR	1	0	0
			111	NR	0	1	2
Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	101	0	0	0	1
			102	1	0	0	0
			103	NR	3	1	4
			104	NR	0	0	1
			105	NR	1	1	1
			106	NR	0	1	1
			107	NR	1	1	1
			108	NR	1	0	1
			109	NR	1	3	2
			110	NR	1	0	4
			111	NR	1	1	1
Creepers, Brown	<i>Carthia americana</i>	CEAM	103	NR	1	0	0
Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	101	18	2	1	3
			106	NR	0	2	0
			110	NR	0	0	1
			111	NR	2	4	1
Crow, Fish	<i>Columbina passerina</i>	COOS	101	0	0	1	0
Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	101	1	1	0	0
			104	NR	1	0	0
			107	NR	0	1	0
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	COAM	104	NR	1	0	0
Dove, Mourning	<i>Zenaida macroura</i>	ZEMA	101	1	0	0	0
			102	1	0	0	0

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Flicker, Northern	<i>Colaptes auratus</i>	COAU	101	0	1	1	2
			102	4	0	0	0
			103	NR	2	0	0
			104	NR	0	2	0
			105	NR	0	2	0
			106	NR	2	0	0
			108	NR	1	0	0
			109	NR	3	1	1
			110	NR	1	1	1
			111	NR	0	3	1
Flycatcher, Acadian	<i>Empidonax virescens</i>	EMVI	106	NR	1	0	0
Flycatcher, Alder	<i>Empidonax alnorum</i>	EMAL	101	1	0	0	0
Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	101	0	1	0	1
			102	1	0	0	0
			103	NR	1	1	2
			104	NR	0	1	1
			105	NR	0	0	1
			106	NR	0	1	0
			107	NR	0	2	2
			108	NR	2	2	3
			109	NR	0	0	0
			109	NR	2	0	0
			111	NR	2	2	1
Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	104	NR	1	0	2
			105	NR	1	0	0
			106	NR	0	1	0
			109	NR	2	0	1
			110	NR	0	1	1
			111	NR	2	3	1
Goldfinch, American	<i>Cardualis tristis</i>	CATR	101	1	3	2	9
			104	NR	1	0	0
			105	NR	0	0	1
			106	NR	0	2	0
			110	NR	1	0	0
Goose, Canada	<i>Branta canadensis</i>	BRCA1	101	0	0	0	57
			111	NR	0	0	6
Grackle, Common	<i>Guiscaulus guisculs</i>	QUQU	101	0	0	0	1
			106	NR	0	1	0
			108	NR	1	0	0
			110	NR	3	0	1
			111	NR	0	1	0
Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	PHLU	104	NR	1	0	0
			106	NR	0	1	0
			109	NR	3	1	1
			110	NR	0	2	1
Grouse, Ruffed	<i>Bonasa umbellus</i>	BOUM	105	NR	1	0	0
Hawk, Broad-winged	<i>Buteo platypterus</i>	BUPL	101	0	0	0	2
Hawk, Red-tailed	<i>Buteo jamaicensis</i>	BUJA	110	NR	1	0	0
Heron, Great Blue	<i>Ardea herodias</i>	ARHE	111	NR	0	0	2

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	101	0	1	1	0
			102	2	0	0	0
			103	NR	1	0	1
			104	NR	0	1	0
			105	NR	0	2	1
			106	NR	1	1	0
			107	NR	1	2	1
			108	NR	2	0	1
			109	NR	0	1	1
			110	NR	0	0	3
Killdeer	<i>Charadrius vociferus</i>	CHVO	101	2	1	0	1
Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	101	0	0	0	1
			105	NR	0	0	1
			106	NR	0	1	1
Mallard	<i>Anas platyrhynchos</i>	ANPL	101	2	0	0	1
Meadowlark, Eastern	<i>Sturnella magna</i>	STMA2	101	0	0	0	1
Mockingbird, Northern	<i>Mimus polyglottos</i>	MIPO	101	2	1	2	1
Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	103	NR	0	1	3
			104	NR	0	1	1
			105	NR	0	0	1
			108	NR	1	0	1
			109	NR	2	1	0
			110	NR	1	1	5
Oriole, Northern	<i>Icterus galbula</i>	ICGA	101	0	0	0	1
			103	NR	3	2	1
			104	NR	1	2	1
			106	NR	0	0	1
			107	NR	1	1	2
			108	NR	1	1	1
			109	NR	2	1	3
			110	NR	3	2	4
			111	NR	1	1	8
Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	101	0	0	0	1
			103	NR	0	1	2
			104	NR	0	0	1
			105	NR	1	1	2
			106	NR	0	1	1
			108	NR	1	5	0
			109	NR	2	1	2
			110	NR	1	1	2
Owl, Barred	<i>Strix varia</i>	STVA	102	2	0	0	0
			103	NR	1	0	0
Owl, Great Horned	<i>Bubo virginianus</i>	BUVI	105	NR	1	0	0
Parula, Northern	<i>Parula americana</i>	PAAM	104	NR	0	1	0

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Pewee, Eastern Wood	<i>Contopus virens</i>	COVII	102	1	0	0	0
			103	NR	2	2	3
			104	NR	1	0	2
			105	NR	1	0	1
			106	NR	0	0	1
			107	NR	2	1	1
			108	NR	3	1	1
			109	NR	2	2	2
			110	NR	2	1	3
			111	NR	2	1	1
Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	104	NR	2	0	1
			105	NR	0	0	1
			109	NR	1	0	0
			111	NR	1	0	0
Redstart, American	<i>Setophaga ruticilla</i>	SERU1	102	2	0	0	0
			103	NR	0	1	2
			104	NR	2	1	1
			105	NR	0	0	1
			106	NR	2	1	1
			108	NR	0	1	1
			109	NR	0	2	3
			110	NR	0	3	3
Robin, American	<i>Turdus migratorius</i>	TUMI	101	7	2	2	5
			102	2	0	0	0
			103	NR	5	4	3
			104	NR	2	1	1
			105	NR	1	1	0
			107	NR	0	1	2
			108	NR	1	0	0
			109	NR	1	4	3
			110	NR	3	4	4
			111	NR	0	0	2
Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	101	0	1	1	1
			103	NR	1	1	1
			104	NR	3	4	4
			105	NR	2	0	1
			109	NR	1	1	0
			110	NR	4	2	1
			111	NR	0	0	1
Sparrow, Field	<i>Spizella pusilla</i>	SPPU1	101	0	2	2	6
			107	NR	2	1	2
Sparrow, Song	<i>Melospiza melodia</i>	MEME	101	4	2	4	4
Starling, European	<i>Sturnus vulgaris</i>	STVU	101	5	0	0	0
Swallow, Barn	<i>Hirundo rustica</i>	HIRU	101	0	0	0	2



Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	102	2	0	0	0
			103	NR	1	3	5
			104	NR	2	3	1
			105	NR	1	2	2
			106	NR	3	1	3
			107	NR	2	1	3
			108	NR	3	2	2
			109	NR	1	2	2
			110	NR	3	3	3
			111	NR	2	1	0
Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	105	NR	1	0	1
			106	NR	0	0	1
			107	NR	0	1	1
			108	NR	1	0	0
			111	NR	1	0	0
Thrush, Swainson's	<i>Catharus ustulatus</i>	CAUS	105	NR	0	0	1
Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	101	0	0	0	2
			102	1	0	0	0
			103	NR	2	3	3
			104	NR	1	0	0
			105	NR	2	1	2
			106	NR	0	1	1
			107	NR	1	0	1
			108	NR	0	1	0
			109	NR	2	2	3
			110	NR	0	1	0
Titmouse, Tufted	<i>Parus bicolor</i>	PABI	104	NR	1	0	1
			106	NR	0	0	1
			107	NR	1	0	0
			108	NR	0	2	0
			109	NR	1	1	0
			110	NR	1	0	0
			111	NR	1	3	1
Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	101	0	1	1	3
			103	NR	0	1	2
			104	NR	1	0	0
			105	NR	3	4	4
			106	NR	1	0	1
			107	NR	3	3	3
			108	NR	0	1	1
			109	NR	1	0	0
			110	NR	1	1	1
			111	NR	0	0	1
Turkey, Wild	<i>Meleagris gallopavo</i>	MEGA	101	0	0	0	1
			110	NR	0	1	0

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Veery	<i>Catharus fuscescens</i>	CAFU2	101	0	0	1	1
			102	1	0	0	0
			103	NR	0	1	1
			104	NR	0	1	0
			105	NR	2	0	1
			106	NR	2	3	2
			107	NR	0	0	2
			109	NR	1	3	3
			110	NR	0	0	1
Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	101	0	1	0	0
			102	3	0	0	0
			103	NR	2	4	3
			104	NR	2	5	3
			105	NR	1	1	3
			106	NR	2	2	2
			107	NR	1	2	2
			108	NR	0	1	0
			109	NR	1	1	4
			110	NR	1	1	4
			111	NR	1	1	1
Vireo, Solitary	<i>Vireo solitarius</i>	VISO	103	NR	0	0	1
			104	NR	0	2	0
			105	NR	3	0	0
			106	NR	2	1	1
Vireo, Warbling	<i>Vireo gilvus</i>	VIGI	101	2	0	0	0
			111	NR	1	0	1
Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	101	0	2	0	0
			102	1	0	0	0
			103	NR	0	0	1
			104	NR	0	1	0
			106	NR	0	1	0
			108	NR	0	0	1
			109	NR	0	0	1
			110	NR	1	2	1
			111	NR	1	1	0
Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	101	0	0	0	1
			102	1	0	0	0
			103	NR	1	0	1
			104	NR	2	0	0
			105	NR	2	3	2
			106	NR	2	0	1
			107	NR	1	2	1
			108	NR	1	0	1
			109	NR	1	0	0
			111	NR	1	2	1
Warbler, Blackburnian	<i>Dendroica fusca</i>	DEFU	103	NR	0	0	1
			106	NR	0	0	1
Warbler, Black-throated Green	<i>Dendroica virens</i>	DEVI	106	NR	3	0	2
Warbler, Blue-winged	<i>Vermivora pinus</i>	VEPI	101	0	3	1	2
Warbler, Canada	<i>Wilsonia canadensis</i>	WICA	105	NR	1	0	0

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	102	3	0	0	0
			104	NR	2	0	1
			109	NR	0	0	2
			110	NR	1	2	0
Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	101	0	0	1	3
			103	NR	0	1	1
			105	NR	1	0	0
			106	NR	0	0	1
Warbler, Golden-winged	<i>Vermivora chrysoptera</i>	VECH	101	0	0	0	1
Warbler, Hooded	<i>Wilsonia citrina</i>	WICI	110	NR	1	4	4
Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	101	0	4	1	4
			105	NR	1	2	3
			107	NR	1	1	0
			108	NR	0	2	1
			109	NR	0	0	1
Warbler, Tennessee	<i>Vermivora peregrina</i>	VEPE	104	NR	0	0	1
Warbler, Yellow	<i>Dendroica petechia</i>	DEPEI	101	4	3	3	6
			105	NR	1	0	0
			106	NR	0	1	1
			109	NR	0	1	1
			110	NR	0	1	0
			111	NR	0	0	2
Warbler, Yellow-rumped	<i>Dendroica coronata</i>	DECO	104	NR	0	0	1
Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	105	NR	0	2	0
			107	NR	1	1	0
			109	NR	0	0	2
			111	NR	0	1	0
Waxwing, Cedar	<i>Bombacillidae cedrorum</i>	BOCE	105	NR	0	0	2
			106	NR	0	0	1
			107	NR	2	1	1
			111	NR	0	0	6
Woodcock, American	<i>Scolopax minor</i>	SCMI	110	NR	1	0	0
Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	101	0	0	0	1
			109	NR	1	0	0
			110	NR	0	1	1
			111	NR	2	0	0
Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	102	1	0	0	0
			104	NR	1	0	0
			105	NR	0	1	0
			108	NR	0	1	0
			109	NR	0	1	1
			110	NR	0	1	1
Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	103	NR	1	0	0
			104	NR	0	0	1
			106	NR	0	0	1
			108	NR	0	1	0
			109	NR	0	0	1

Plot Numbers for each Species

Common Name	Scientific Name	VERTID	PLOTID	1992	1995	1996	1997
Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	102	1	0	0	0
			106	NR	0	0	1
			108	NR	1	0	0
			109	NR	1	0	0
Wren, House	<i>Troglodytes aedon</i>	TRAЕ	101	0	0	2	0
Wren, Winter	<i>Troglodytes troglodytes</i>	TRTR	105	NR	0	0	1
Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	101	3	3	2	2
			102	1	0	0	0
			103	NR	0	0	1
			106	NR	0	0	2
			107	NR	0	1	1
			108	NR	0	1	0
			109	NR	2	1	3
				104	288	279	464

## **Appendix C: West Point Bird Species on Each LCTA Plot**

# Plot Checklist

Table C. Bird species checklist for West Point special use plots.

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
101	Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	AGPH	16	6	3	5
	Bobolink	<i>Dolichonyx oryzivorus</i>	DOOR	2	1	2	1
	Bunting, Indigo	<i>Passerina cyanea</i>	PACY	0	2	0	2
	Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	0	1	0	0
	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	1	0	1	2
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	0	0	0	1
	Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	18	2	1	3
	Crow, Fish	<i>Columbina passerina</i>	COOS	0	0	1	0
	Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	1	1	0	0
	Dove, Mourning	<i>Zenaida macroura</i>	ZEMA	1	0	0	0
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	0	1	1	2
	Flycatcher, Alder	<i>Empidonax alnorum</i>	EMAL	1	0	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	0	1	0	1
	Goldfinch, American	<i>Cardualis tristis</i>	CATR	1	3	2	9
	Goose, Canada	<i>Branta canadensis</i>	BRCA1	0	0	0	57
	Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	0	0	0	1
	Hawk, Broad-winged	<i>Bufo platypterus</i>	BUPL	0	0	0	2
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	0	1	1	0
	Killdeer	<i>Charadrius vociferus</i>	CHVO	2	1	0	1
	Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	0	0	0	1
	Mallard	<i>Anas platyrhynchos</i>	ANPL	2	0	0	1
	Meadowlark, Eastern	<i>Sturnella magna</i>	STMA2	0	0	0	1
	Mockingbird, Northern	<i>Mimus polyglottos</i>	MIPO	2	1	2	1
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	0	0	0	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	0	0	0	1
	Robin, American	<i>Turdus migratorius</i>	TUMI	7	2	2	5
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	0	1	1	1
	Sparrow, Field	<i>Spizella pusilla</i>	SPPU1	0	2	2	6
	Sparrow, Song	<i>Melospiza melodia</i>	MEME	4	2	4	4
	Starling, European	<i>Sturnus vulgaris</i>	STVU	5	0	0	0
	Swallow, Barn	<i>Hirundo rustica</i>	HIRU	0	0	0	2
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	0	0	0	2
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	0	1	1	3
	Turkey, Wild	<i>Meleagris gallopavo</i>	MEGA	0	0	0	1
	Veery	<i>Catharus fuscescens</i>	CAFU2	0	0	1	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	0	1	0	0
	Vireo, Warbling	<i>Vireo gilvus</i>	VIGI	2	0	0	0
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	0	2	0	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	0	0	0	1
	Warbler, Blue-winged	<i>Vermivora pinus</i>	VEPI	0	3	1	2
	Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	0	0	1	3
	Warbler, Golden-winged	<i>Vermivora chrysoptera</i>	VECH	0	0	0	1
	Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	0	4	1	4
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	4	3	3	6
	Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	0	0	0	1
	Wren, House	<i>Troglodytes aedon</i>	TRAE	0	0	2	0
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	3	3	2	2

# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
102	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	1	0	0	0
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	1	0	0	0
	Dove, Mourning	<i>Zenaida macroura</i>	ZEMA	1	0	0	0
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	4	0	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	1	0	0	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	2	0	0	0
	Owl, Barred	<i>Strix varia</i>	STVA	2	0	0	0
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	1	0	0	0
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	2	0	0	0
	Robin, American	<i>Turdus migratorius</i>	TUMI	2	0	0	0
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	2	0	0	0
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	1	0	0	0
	Veery	<i>Catharus fuscescens</i>	CAFU2	1	0	0	0
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	3	0	0	0
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	1	0	0	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	1	0	0	0
	Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	3	0	0	0
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	1	0	0	0
	Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	1	0	0	0
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	1	0	0	0
103	Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	NR	0	0	1
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	0	1	1
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	3	1	4
	Creeper, Brown	<i>Carthia americana</i>	CEAM	NR	1	0	0
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	2	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	1	1	2
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	1	0	1
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	0	1	3
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	3	2	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	0	1	2
	Owl, Barred	<i>Strix varia</i>	STVA	NR	1	0	0
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	2	2	3
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	0	1	2
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	5	4	3
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	1	1	1
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	1	3	5
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	2	3	3
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	0	1	2
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	0	1	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	2	4	3
	Vireo, Solitary	<i>Vireo solitarius</i>	VISO	NR	0	0	1
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	0	0	1
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	1	0	1
	Warbler, Blackburnian	<i>Dendroica fusca</i>	DEFU	NR	0	0	1
	Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	NR	0	1	1
	Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	NR	1	0	0
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	NR	0	0	1

# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
104	Bluebird, Eastern	<i>Sialia sialis</i>	SISI	NR	3	0	0
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	1	0	2
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	0	0	1
	Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	NR	1	0	0
	Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	COAM	NR	1	0	0
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	0	2	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	0	1	1
	Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	NR	1	0	2
	Goldfinch, American	<i>Cardualis tristis</i>	CATR	NR	1	0	0
	Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	PHLU	NR	1	0	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	0	1	0
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	0	1	1
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	1	2	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	0	0	1
	Parula, Northern	<i>Parula americana</i>	PAAM	NR	0	1	0
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	1	0	2
	Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	NR	2	0	1
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	2	1	1
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	2	1	1
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	3	4	4
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	2	3	1
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	1	0	0
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	1	0	1
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	1	0	0
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	0	1	0
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	2	5	3
	Vireo, Solitary	<i>Vireo solitarius</i>	VISO	NR	0	2	0
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	0	1	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	2	0	0
	Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	NR	2	0	1
	Warbler, Tennessee	<i>Vermivora peregrina</i>	VEPE	NR	0	0	1
	Warbler, Yellow-rumped	<i>Dendroica coronata</i>	DECO	NR	0	0	1
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	NR	1	0	0
	Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	NR	0	0	1
105	Bunting, Indigo	<i>Passerina cyanea</i>	PACY	NR	0	1	1
	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	1	0	2
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	1	2	0
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	1	1
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	0	2	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	0	0	1
	Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	NR	1	0	0
	Goldfinch, American	<i>Cardualis tristis</i>	CATR	NR	0	0	1
	Grouse, Ruffed	<i>Bonasa umbellus</i>	BOUM	NR	1	0	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	0	2	1
	Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	NR	0	0	1
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	0	0	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	1	1	2
	Owl, Great Horned	<i>Bubo virginianus</i>	BUVI	NR	1	0	0
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	1	0	1
	Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	NR	0	0	1



# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	0	0	1
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	1	1	0
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	2	0	1
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	1	2	2
	Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	NR	1	0	1
	Thrush, Swainson's	<i>Catharus ustulatus</i>	CAUS	NR	0	0	1
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	2	1	2
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	3	4	4
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	2	0	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	1	1	3
	Vireo, Solitary	<i>Vireo solitarius</i>	VISO	NR	3	0	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	2	3	2
	Warbler, Canada	<i>Wilsonia canadensis</i>	WICA	NR	1	0	0
	Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	NR	1	0	0
	Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	NR	1	2	3
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	NR	1	0	0
	Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	NR	0	2	0
	Waxwing, Cedar	<i>Bombicillidae cedrorum</i>	BOCE	NR	0	0	2
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	NR	0	1	0
	Wren, Winter	<i>Troglodytes troglodytes</i>	TRTR	NR	0	0	1
106	Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	AGPH	NR	0	0	3
	Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	NR	1	0	0
	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	1	0	2
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	1	1	2
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	0	1	1
	Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	NR	0	2	0
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	2	0	0
	Flycatcher, Acadian	<i>Empidonax virescens</i>	EMVI	NR	1	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	0	1	0
	Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	NR	0	1	0
	Goldfinch, American	<i>Cardualis tristis</i>	CATR	NR	0	2	0
	Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	NR	0	1	0
	Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	PHLU	NR	0	1	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	1	1	0
	Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	NR	0	1	1
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	0	0	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	0	1	1
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	0	0	1
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	2	1	1
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	3	1	3
	Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	NR	0	0	1
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	0	1	1
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	0	0	1
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	1	0	1
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	2	3	2
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	2	2	2
	Vireo, Solitary	<i>Vireo solitarius</i>	VISO	NR	2	1	1
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	0	1	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	2	0	1
	Warbler, Blackburnian	<i>Dendroica fusca</i>	DEFU	NR	0	0	1

# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
	Warbler, Black-throated Green	<i>Dendroica virens</i>	DEVI	NR	3	0	2
	Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	NR	0	0	1
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	NR	0	1	1
	Waxwing, Cedar	<i>Bombycillidae cedrorum</i>	BOCE	NR	0	0	1
	Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	NR	0	0	1
	Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	NR	0	0	1
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	NR	0	0	2
107	Bluebird, Eastern	<i>Sialia sialis</i>	SISI	NR	0	0	2
	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	1	2	1
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	1	0	0
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	1	1
	Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	NR	0	1	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	0	2	2
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	1	2	1
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	1	1	2
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	2	1	1
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	0	1	2
	Sparrow, Field	<i>Spizella pusilla</i>	SPPU1	NR	2	1	2
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	2	1	3
	Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	NR	0	1	1
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	1	0	1
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	1	0	0
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	3	3	3
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	0	0	2
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	1	2	2
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	1	2	1
	Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	NR	1	1	0
	Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	NR	1	1	0
	Waxwing, Cedar	<i>Bombycillidae cedrorum</i>	BOCE	NR	2	1	1
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	NR	0	1	1
108	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	0	1	0
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	0	1
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	1	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	2	2	3
	Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	NR	1	0	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	2	0	1
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	1	0	1
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	1	1	1
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	1	5	0
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	3	1	1
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	0	1	1
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	1	0	0
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	3	2	2
	Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	NR	1	0	0
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	0	1	0
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	0	2	0
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	0	1	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	0	1	0
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	0	0	1
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	1	0	1

# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
	Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	NR	0	2	1
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	NR	0	1	0
	Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	NR	0	1	0
	Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	NR	1	0	0
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	NR	0	1	0
109	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	0	0	2
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	3	2
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	3	1	1
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	0	0	0
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	2	0	0
	Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	NR	2	0	1
	Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	PHLU	NR	3	1	1
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	0	1	1
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	2	1	0
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	2	1	3
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	2	1	2
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	2	2	2
	Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	NR	1	0	0
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	0	2	3
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	1	4	3
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	1	1	0
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	1	2	2
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	2	2	3
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	1	1	0
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	1	0	0
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	1	3	3
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	1	1	4
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	0	0	1
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	1	0	0
	Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	NR	0	0	2
	Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	NR	0	0	1
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	NR	0	1	1
	Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	NR	0	0	2
	Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	NR	1	0	0
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	NR	0	1	1
	Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	NR	0	0	1
	Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	NR	1	0	0
	Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	NR	2	1	3
110	Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	NR	1	0	1
	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	1	0	0
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	0	4
	Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	NR	0	0	1
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	1	1	1
	Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	NR	0	1	1
	Goldfinch, American	<i>Cardualis tristis</i>	CATR	NR	1	0	0
	Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	NR	3	0	1
	Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>	PHLU	NR	0	2	1
	Hawk, Red-tailed	<i>Buteo jamaicensis</i>	BUJA	NR	1	0	0
	Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	NR	0	0	3
	Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	NR	1	1	5

# Plot Checklist

PLOTID	Common Name	Scientific Name	VERTID	1992	1995	1996	1997
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	3	2	4
	Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	NR	1	1	2
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	2	1	3
	Redstart, American	<i>Setophaga ruticilla</i>	SERU1	NR	0	3	3
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	3	4	4
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	4	2	1
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	3	3	3
	Thrush, Wood	<i>Hylocichla mustelina</i>	HYMU	NR	0	1	0
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	1	0	0
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	1	1	1
	Turkey, Wild	<i>Meleagris gallopavo</i>	MEGA	NR	0	1	0
	Veery	<i>Catharus fuscescens</i>	CAFU2	NR	0	0	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	1	1	4
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	1	2	1
	Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	NR	1	2	0
	Warbler, Hooded	<i>Wilsonia citrina</i>	WICI	NR	1	4	4
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	NR	0	1	0
	Woodcock, American	<i>Scolopax minor</i>	SCMI	NR	1	0	0
	Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	NR	0	1	1
	Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	NR	0	1	1
111	Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	NR	0	0	2
	Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	NR	0	1	2
	Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	NR	1	1	1
	Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	NR	2	4	1
	Flicker, Northern	<i>Colaptes auratus</i>	COAU	NR	0	3	1
	Flycatcher, Great Crested	<i>Myiarchus crinitus</i>	MYCR	NR	2	2	1
	Gnatcatcher, Blue-gray	<i>Poliopitila caerulea</i>	POCA	NR	2	3	1
	Goose, Canada	<i>Branta canadensis</i>	BRCA1	NR	0	0	6
	Grackle, Common	<i>Guiscaulus guiscus</i>	QUQU	NR	0	1	0
	Heron, Great Blue	<i>Ardea herodias</i>	ARHE	NR	0	0	2
	Oriole, Northern	<i>Icterus galbula</i>	ICGA	NR	1	1	8
	Pewee, Eastern Wood	<i>Contopus virens</i>	COVI1	NR	2	1	1
	Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	NR	1	0	0
	Robin, American	<i>Turdus migratorius</i>	TUMI	NR	0	0	2
	Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	NR	0	0	1
	Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	NR	2	1	0
	Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	NR	1	0	0
	Titmouse, Tufted	<i>Parus bicolor</i>	PABI	NR	1	3	1
	Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	NR	0	0	1
	Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	NR	1	1	1
	Vireo, Warbling	<i>Vireo gilvus</i>	VIGI	NR	1	0	1
	Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	NR	1	1	0
	Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	NR	1	2	1
	Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	NR	0	0	2
	Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	NR	0	1	0
	Waxwing, Cedar	<i>Bombicillidae cedrorum</i>	BOCE	NR	0	0	6
	Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	NR	2	0	0
				104	288	279	464

## **Appendix D: Guild Associations for Each West Point Bird Species**

Table D. Guild association for each West Point bird species that occurs on special use plots.

COMMON NAME	SCIENTIFIC NAME	LCTA		STATUS	NEST LOCATION	NEST TYPE	FOOD TYPE	SUBSTRATE	TECHNIQUE	GENERAL HABITAT
		CODE	NEO							
Blackbird, Red-winged	<i>Agelaius phoeniceus</i>	AGPH	B	Reed	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Swamp/Marsh
Bluebird, Eastern	<i>Sialia sialis</i>	SISI	B	Snag	Cavity	Insects	Air	Hawker	Hawker	Forest Edge
Bobolink	<i>Dolichonyx oryzivorus</i>	DOOR	A	Ground	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Grassland
Bunting, Indigo	<i>Passerina cyanea</i>	PACY	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Foliage Gleaner	Forest Edge
Cardinal, Northern	<i>Cardinalis cardinalis</i>	CACA4	R	Shrub	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Shrubland
Catbird, Gray	<i>Dumetella carolinensis</i>	DUCA	A	Shrub	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Shrubland
Chickadee, Black-capped	<i>Parus atricapillus</i>	PAAT	R	Woody Lower Canopy	Cavity	Insects	Foliage	Foliage Gleaner	Foliage Gleaner	Forest
Cowbird, Brown-headed	<i>Molothrus ater</i>	MOAT	B	Woody Upper Canopy	Parasitic	Insects	Ground	Ground Gleaner	Ground Gleaner	Forest Edge
Creepers, Brown	<i>Certhia americana</i>	CEAM	B	Woody Upper Canopy	Cup	Insects	Bark	Bark Gleaner	Bark Gleaner	Forest
Crow, American	<i>Corvus brachyrhynchos</i>	COBR1	R	Woody Upper Canopy	Cup	Insects	Ground	Scavenger	Scavenger	Forest
Crow, Fish	<i>Corvus ossifragus</i>	COOS	R	Woody Upper Canopy	Cup	Aquatic Inverts	Ground	Scavenger	Scavenger	Shoreline
Cuckoo, Black-billed	<i>Coccyzus erythrophthalmus</i>	COER	A	Woody Lower Canopy	Platform	Insects	Foliage	Scavenger	Scavenger	Forest
Cuckoo, Yellow-billed	<i>Coccyzus americanus</i>	COAM	A	Woody Lower Canopy	Platform	Insects	Foliage	Foliage Gleaner	Foliage Gleaner	Forest
Dove, Mourning	<i>Zenaidura macroura</i>	ZEMA	B	Woody Lower Canopy	Saucer	Seeds	Ground	Ground Gleaner	Ground Gleaner	Forest Edge
Flicker, Northern	<i>Colaptes auratus</i>	COAU	B	Snag	Cavity	Insects	Ground	Ground Gleaner	Ground Gleaner	Forest
Flycatcher, Acadian	<i>Empidonax virens</i>	EMVI	A	Woody Lower Canopy	Cup	Insects	Air	Hawker	Hawker	Riparian
Flycatcher, Alder	<i>Empidonax alnorum</i>	EMAL	A	Shrub	Cup	Insects	Air	Hawker	Hawker	Swamp/Marsh
Flycatcher, Great-crested	<i>Myiarchus crinitus</i>	MYCR	A	Woody Upper Canopy	Cavity	Insects	Air	Hawker	Hawker	Forest Edge
Gnatcatcher, Blue-gray	<i>Poliophtila caerulea</i>	POCA	A	Woody Lower Canopy	Cup	Insects	Foliage	Foliage Gleaner	Foliage Gleaner	Forest
Goldfinch, American	<i>Carduelis tristis</i>	CATR	B	Shrub	Cup	Seeds	Foliage	Foliage Gleaner	Foliage Gleaner	Grassland
Goose, Canada	<i>Branta canadensis</i>	BRCA1	R	Ground	Scrape	Greens	Water	Surface Dips	Surface Dips	Swamp/Marsh
Grackle, Common	<i>Quiscalus quiscula</i>	QUQU	R	Woody Lower Canopy	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Grassland
Grosbeak, Rose-breasted	<i>Phoebastria ludovicianus</i>	PHLU	A	Woody Lower Canopy	Cup	Insects	Foliage	Foliage Gleaner	Foliage Gleaner	Forest
Grouse, Ruffed	<i>Bonasa umbellus</i>	BOUM	R	Ground	Scrape	Greens	Foliage	Foliage Browser	Foliage Browser	Forest
Hawk, Broad-winged	<i>Buteo platypterus</i>	BUPL	A	Woody Upper Canopy	Platform	Small Mammals	Ground	Swooper	Swooper	Forest
Hawk, Red-tailed	<i>Buteo jamaicensis</i>	BUJA	B	Woody Upper Canopy	Platform	Small Mammals	Ground	High Patrol	High Patrol	Forest
Heron, Great Blue	<i>Ardea herodias</i>	ARHE	R	Woody Upper Canopy	Platform	Fish	Water	Ambusher	Ambusher	Swamp/Marsh
Jay, Blue	<i>Cyanocitta cristata</i>	CYCR	R	Woody Lower Canopy	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Forest
Killdeer	<i>Charadrius vociferus</i>	CHVO	B	Ground	Scrape	Insects	Ground	Hawker	Hawker	Shoreline
Kingbird, Eastern	<i>Tyrannus tyrannus</i>	TYTY	A	Woody Lower Canopy	Cup	Insects	Air	Dabbler	Dabbler	Riparian
Mallard	<i>Anas platyrhynchos</i>	ANPL	R	Ground	Scrape	Seeds	Water	Ground Gleaner	Ground Gleaner	Freshwater
Meadowlark, Eastern	<i>Sturnella magna</i>	STMA2	B	Ground	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Grassland
Mockingbird, Northern	<i>Mimus polyglottos</i>	MIPO	B	Shrub	Cup	Insects	Ground	Ground Gleaner	Ground Gleaner	Shrubland

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COMMON NAME	SCIENTIFIC NAME	LCTA		NEST LOCATION	NEST TYPE	FOOD TYPE	SUBSTRATE	TECHNIQUE	GENERAL HABITAT
		CODE	STATUS						
Nuthatch, White-breasted	<i>Sitta carolinensis</i>	SICA2	R	Woody Upper Canopy	Cavity	Insects	Bark	Bark Gleaner	Forest
Oriole, Northern	<i>Icterus galbula</i>	ICGA	A	Woody Upper Canopy	Pendant	Insects	Foliage	Foliage Gleaner	Forest Edge
Ovenbird	<i>Seiurus aurocapillus</i>	SEAU	A	Ground	Oven	Insects	Ground	Ground Gleaner	Forest
Owl, Barred	<i>Strix varia</i>	STVA	R	Snag	Cavity	Small Mammals	Ground	Low Patrol	Forest
Owl, Great Horned	<i>Bubo virginianus</i>	BUVI	R	Woody Upper Canopy	Abandoned	Small Mammals	Ground	Swooper	Forest
Parula, Northern	<i>Parula americana</i>	PAAM	A	Woody Upper Canopy	Pendant	Insects	Foliage	Foliage Gleaner	Forest
Pewee, Eastern Wood	<i>Contopus virens</i>	COVI	A	Woody Upper Canopy	Cup	Insects	Air	Hawker	Forest
Phoebe, Eastern	<i>Sayornis phoebe</i>	SAPH	B	Man-made Structure	Cup	Insects	Air	Hawker	Riparian
Redstart, American	<i>Setophaga ruticilla</i>	SERUI	A	Woody Lower Canopy	Cup	Insects	Air	Hover Gleaner	Forest
Robin, American	<i>Turdus migratorius</i>	TUMI	B	Woody Lower Canopy	Cup	Insects	Ground	Ground Gleaner	Forest
Sparrow, Chipping	<i>Spizella passerina</i>	SPPA2	A	Woody Lower Canopy	Cup	Insects	Ground	Ground Gleaner	Forest
Sparrow, Field	<i>Spizella pusilla</i>	SPPU1	R	Ground	Cup	Insects	Ground	Ground Gleaner	Shrubland
Sparrow, Song	<i>Melospiza melodia</i>	MEME	B	Ground	Cup	Insects	Ground	Ground Gleaner	Riparian
Starling, European	<i>Sturnus vulgaris</i>	STVU	R	Woody Upper Canopy	Cavity	Insects	Ground	Ground Gleaner	Grassland
Swallow, Barn	<i>Hirundo rustica</i>	HIRU	A	Man-made Structure	Cup	Insects	Air	Aerial Foraging	Freshwater
Tanager, Scarlet	<i>Piranga olivacea</i>	PIOL	A	Woody Upper Canopy	Saucer	Insects	Air	Hover Gleaner	Forest
Thrush, Hermit	<i>Catharus guttatus</i>	CAGU	B	Ground	Cup	Insects	Ground	Ground Gleaner	Forest
Thrush, Swainson's	<i>Catharus ustulatus</i>	CAUS	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Forest
Thrush, Wood	<i>Hylocichla ustulata</i>	HYMU	A	Woody Upper Canopy	Cup	Insects	Ground	Ground Gleaner	Forest
Titmouse, Tufted	<i>Parus bicolor</i>	PABI	R	Woody Upper Canopy	Cavity	Insects	Foliage	Foliage Gleaner	Forest
Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>	PIER	B	Ground	Cup	Insects	Ground	Ground Gleaner	Forest Edge
Turkey, Wild	<i>Meleagris gallopavo</i>	MEGA	R	Ground	Scrape	Seeds	Ground	Ground Gleaner	Forest
Veery	<i>Catharus fuscescens</i>	CAFU2	A	Ground	Cup	Insects	Ground	Ground Gleaner	Forest
Vireo, Red-eyed	<i>Vireo olivaceus</i>	VIOL	A	Shrub	Cup	Insects	Air	Hover Gleaner	Forest
Vireo, Solitary	<i>Vireo solitarius</i>	VISO	A	Woody Lower Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Vireo, Warbling	<i>Vireo gilvus</i>	VIGI	A	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Vireo, Yellow-throated	<i>Vireo flavifrons</i>	VIFL	A	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Warbler, Black-and-white	<i>Mniotilta varia</i>	MNVA	A	Ground	Cup	Insects	Bark	Bark Gleaner	Forest
Warbler, Blackburnian	<i>Dendroica fusca</i>	DEFU	A	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Warbler, Black-throated Green	<i>Dendroica virens</i>	DEVI	A	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Warbler, Blue-winged	<i>Vermivora pinus</i>	VEPI	A	Ground	Cup	Insects	Foliage	Foliage Gleaner	Shrubland
Warbler, Canada	<i>Wilsonia canadensis</i>	WICA	A	Ground	Cup	Insects	Air	Hover Gleaner	Forest
Warbler, Cerulean	<i>Dendroica cerulea</i>	DECE	A	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Warbler, Chestnut-sided	<i>Dendroica pensylvanica</i>	DEPE	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Shrubland

COMMON NAME	SCIENTIFIC NAME	LCTA CODE	NEO STATUS	NEST LOCATION	NEST TYPE	FOOD TYPE	SUBSTRATE	TECHNIQUE	GENERAL HABITAT
Warbler, Golden-winged	<i>Vermivora chrysoptera</i>	VECH	A	Ground	Cup	Insects	Foliage	Foliage Gleaner	Grassland
Warbler, Hooded	<i>Wilsonia citrina</i>	WICI	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Forest
Warbler, Prairie	<i>Dendroica discolor</i>	DEDI	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Shrubland
Warbler, Tennessee	<i>Vermivora peregrina</i>	VEPE	A	Ground	Cup	Insects	Foliage	Foliage Gleaner	Swamp/Marsh
Warbler, Yellow	<i>Dendroica petechia</i>	DEPE1	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Riparian
Warbler, Yellow-rumped	<i>Dendroica coronata</i>	DECO	B	Woody Upper Canopy	Cup	Insects	Foliage	Foliage Gleaner	Forest
Waterthrush, Louisiana	<i>Seiurus motacilla</i>	SEMO	A	Ground	Cup	Aquatic Inverts	Ground	Ground Gleaner	Riparian
Waxwing, Cedar	<i>Bombicilla cedrorum</i>	BOCE	B	Woody Upper Canopy	Cup	Fruit	Foliage	Foliage Gleaner	Forest
Woodcock, American	<i>Scolopax minor</i>	SCMI	R	Ground	Scrape	Insects	Ground	Prober	Swamp/Marsh
Woodpecker, Downy	<i>Picoides pubescens</i>	PIPU	R	Snag	Cavity	Insects	Bark	Bark Gleaner	Forest
Woodpecker, Hairy	<i>Picoides villosus</i>	PIVI	R	Woody Upper Canopy	Cavity	Insects	Bark	Bark Gleaner	Forest
Woodpecker, Pileated	<i>Dryocopus pileatus</i>	DRPI	R	Snag	Cavity	Insects	Bark	Bark Gleaner	Forest
Woodpecker, Red-bellied	<i>Melanerpes carolinus</i>	MECA	R	Snag	Cavity	Insects	Bark	Bark Gleaner	Forest
Wren, House	<i>Troglodytes aedon</i>	TRAE	A	Woody Lower Canopy	Cavity	Insects	Ground	Ground Gleaner	Forest
Wren, Winter	<i>Troglodytes troglodytes</i>	TRTR	R	Snag	Cavity	Insects	Ground	Ground Gleaner	Forest
Yellowthroat, Common	<i>Geothlypis trichas</i>	GETR	A	Shrub	Cup	Insects	Foliage	Foliage Gleaner	Forest Edge



## **Appendix E: West Point Summary Information**

# Installation Summary

**Table E1. General information for West Point special use plot bird data.**

Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds
11	11	7	88	85	13	1,184	1,137	47

**Table E2. Installation information for West Point special use plots, by year.**

Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
1992	2	2	1	34	33	1	105	104	1	51.00	50.50	0.50
1995	10	10	2	65	63	4	292	288	4	28.50	28.10	0.40
1996	10	10	4	55	54	5	297	281	16	28.50	26.90	1.60
1997	10	10	4	68	67	3	490	464	26	48.20	45.60	2.60

**Table E3. Installation information for West Point special use plots, by period.**

Year	Period	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
1992	AM	2	2	0	30	30	0	55	55	0	26.00	26.00	0
	PM	2	2	1	19	18	1	50	49	1	25.00	24.50	0.50
1995	AM	10	10	1	55	54	2	152	150	2	14.70	14.50	0.20
	PM	10	10	2	51	49	2	140	138	2	13.80	13.60	0.20
1996	AM	10	10	0	52	52	0	162	162	0	15.30	15.30	0
	PM	10	10	4	44	41	5	135	119	16	13.20	11.60	1.60
1997	AM	10	10	1	60	59	2	273	250	23	26.70	24.40	2.30
	PM	10	10	3	54	52	2	217	214	3	21.50	21.20	0.30

# Installation Summary

**Table E4. Installation information for West Point special use plots, by transect.**

Year	Transect	Total Plots	Site Plots	Total Spp	Site Spp	Total Birds	Site Birds	Ave Tot Birds	Ave Site Birds
1992	Line Out	2	2	20	20	50	50	25.00	25.00
	End Point	2	2	14	14	22	22	10.50	10.50
	Line In	2	2	17	17	32	32	15.00	15.00
1995	Line Out	10	10	49	49	151	151	14.80	14.80
	End Point	10	10	34	34	83	83	7.90	7.90
	Line In	10	10	33	33	54	54	5.40	5.40
1996	Line Out	10	10	40	40	144	144	13.80	13.80
	End Point	10	10	37	37	94	94	9.10	9.10
	Line In	10	10	27	27	43	43	4.00	4.00
1997	Line Out	10	10	52	52	254	254	25.20	25.20
	End Point	10	10	48	48	133	133	12.80	12.80
	Line In	10	10	39	39	77	77	7.60	7.60

# Installation Summary

Table E5. Installation information for West Point special use plots, by mated status.

Mated Status	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
Singing Male	1992	2	2	0	30	30	0	59	59	0	29.50	29.50	0
	1995	10	10	2	61	58	4	254	250	4	25.40	25.00	0
	1996	10	10	1	50	50	1	242	240	2	24.20	24.00	0
	1997	10	10	0	59	59	0	331	331	0	33.10	33.10	0
Female Only	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	2	0	2	2	0	2	2	0	0.20	0.20	0
Flock	1996	10	0	1	2	0	2	12	0	12	1.20	0	1.20
	1997	10	0	1	1	0	1	21	0	21	2.10	0	2.10
Nonsinging Male	1992	2	1	0	1	1	0	7	7	0	3.50	3.50	0
	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1996	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	3	0	4	4	0	4	4	0	0.40	0.40	0
Not Recorded	1997	10	3	0	9	9	0	75	75	0	7.50	7.50	0
Adult Male/Female	1992	2	2	0	3	3	0	3	3	0	1.50	1.50	0
	1995	10	5	0	7	7	0	7	7	0	0.70	0.70	0
	1996	10	8	0	10	10	0	12	12	0	1.20	1.20	0
	1997	10	5	0	7	7	0	8	8	0	0.80	0.80	0
Unknown Sex	1992	2	2	1	7	6	1	31	30	1	15.50	15.00	0.50
	1995	10	8	0	17	17	0	22	22	0	2.20	2.20	0
	1996	10	7	2	14	12	2	18	16	2	1.80	1.60	0.20
	1997	10	9	4	16	14	2	41	36	5	4.10	3.60	0.50

## **Appendix F: West Point Summary Information by Vegetation Type**

## Installation Summary by Vegetation Groupings

**Table F1. Vegetation types for West Point special use plots that were used in the analyses.**

Plot	Vegetation Type
101	Successional Old Field
102	Successional Old Field
103	Appalachian Oak-Hickory
104	Appalachian Oak-Hickory
105	Hemlock-Hardwood Swamp
106	Hemlock-Northern Hardwood Forest
107	Burn Barren
108	Appalachian Oak-Hickory
109	Successional Old Field
110	Appalachian Oak-Hickory
111	Appalachian Oak-Hickory

# Installation Summary by Vegetation Groupings

Table F2. Installation summary for West Point special use plots, by vegetation type.

Vegetation Type	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds
BURN BARREN	1	1	1	25	23	2	99	76	23
HEMLOCK-HARDWOOD SWAMP	1	1	0	36	36	0	93	93	0
HEMLOCK-NORTHERN HARDWOOD FOREST	1	1	1	39	38	1	86	85	1
OAK-HICKORY	5	5	3	60	58	4	456	452	4
SUCCESSIONAL OLD FIELD	3	3	2	64	61	8	450	431	19

# Installation Summary by Vegetation Groupings

Table F3. Vegetation types for West Point special use plots, by year.

Vegetation Type	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	1995	1	1	0	16	16	0	22	22	0	22.00	22.00	0
	1996	1	1	0	18	18	0	25	25	0	25.00	25.00	0
	1997	1	1	1	20	18	2	52	29	23	52.00	29.00	23.00
HEMLOCK-HARDWOOD SWAMP	1995	1	1	0	22	22	0	30	30	0	29.00	29.00	0
	1996	1	1	0	15	15	0	26	26	0	25.00	25.00	0
	1997	1	1	0	24	24	0	37	37	0	37.00	37.00	0
HEMLOCK-NORTHERN HARDWOOD	1995	1	1	1	15	14	1	25	24	1	25.00	24.00	1.00
	1996	1	1	0	20	20	0	25	25	0	24.00	24.00	0
	1997	1	1	0	26	26	0	36	36	0	36.00	36.00	0
OAK-HICKORY	1995	5	5	0	42	42	0	133	133	0	25.80	25.80	0
	1996	5	5	2	41	39	2	142	140	2	27.20	26.80	0.40
	1997	5	5	2	45	44	2	181	179	2	35.00	34.60	0.40
SUCCESSIONAL OLD FIELD	1992	2	2	1	34	33	1	105	104	1	51.00	50.50	0.50
	1995	2	2	1	40	38	3	82	79	3	40.00	38.50	1.50
	1996	2	2	2	35	33	3	79	65	14	37.50	30.50	7.00
	1997	2	2	1	49	48	1	184	183	1	91.00	90.50	0.50



# Installation Summary by Vegetation Groupings

Table F4. Vegetation types for West Point special use plots, by period.

Vegetation Type	Year	Period	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	1995	AM	1	1	0	14	14	0	14	14	0	14.00	14.00	0
		PM	1	1	0	6	6	0	8	8	0	8.00	8.00	0
	1996	AM	1	1	0	16	16	0	18	18	0	18.00	18.00	0
		PM	1	1	0	8	7	0	7	7	0	7.00	7.00	0
	1997	AM	1	1	1	15	13	2	37	14	23	37.00	14.00	23.00
		PM	1	1	0	12	12	0	15	15	0	15.00	15.00	0
HEMLOCK-HARDWOOD SWAMP	1995	AM	1	1	0	15	15	0	17	17	0	16.00	16.00	0
		PM	1	1	0	12	12	0	13	13	0	13.00	13.00	0
	1996	AM	1	1	0	13	13	0	13	13	0	13.00	13.00	0
		PM	1	1	0	10	10	0	13	13	0	12.00	12.00	0
	1997	AM	1	1	0	12	12	0	15	15	0	15.00	15.00	0
		PM	1	1	0	20	20	0	22	22	0	22.00	22.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	1995	AM	1	1	0	11	11	0	11	11	0	11.00	11.00	0
		PM	1	1	1	11	10	1	14	13	1	14.00	13.00	1.00
	1996	AM	1	1	0	12	12	0	13	13	0	12.00	12.00	0
		PM	1	1	0	11	11	0	12	12	0	12.00	12.00	0
	1997	AM	1	1	0	17	17	0	18	18	0	18.00	18.00	0
		PM	1	1	0	16	16	0	18	18	0	18.00	18.00	0
OAK-HICKORY	1995	AM	5	5	0	31	31	0	61	61	0	11.80	11.80	0
		PM	5	5	0	29	29	0	72	72	0	14.00	14.00	0
	1996	AM	5	5	0	34	34	0	77	77	0	14.60	14.60	0
		PM	5	5	2	29	27	2	65	63	2	12.60	12.20	0.40
	1997	AM	5	5	0	38	38	0	106	106	0	20.40	20.40	0
		PM	5	5	2	31	29	2	75	73	2	14.60	14.20	0.40
SUCCESSIONAL OLD FIELD	1992	AM	2	2	0	30	30	0	55	55	0	26.00	26.00	0
		PM	2	2	1	19	18	1	50	49	1	25.00	24.50	0.50
	1995	AM	2	2	1	31	30	2	49	47	2	23.50	22.50	1.00
		PM	2	2	1	27	26	1	33	32	1	16.50	16.00	0.50
	1996	AM	2	2	0	29	29	0	41	41	0	18.50	18.50	0
		PM	2	2	2	22	19	3	38	24	14	19.00	12.00	7.00
	1997	AM	2	2	0	42	42	0	97	97	0	47.50	47.50	0
		PM	2	2	1	34	33	1	87	86	1	43.50	43.00	0.50

# Installation Summary by Vegetation Groupings

Table F5. Vegetation types for West Point special use plots, by transect.

Vegetation Type	Year	Transect	Total Plots	Site Plots	Total Spp	Site Spp	Total Birds	Site Birds	Ave Tot Birds	Ave Site Birds
BURN BARREN	1995	Line Out	1	1	15	15	17	17	17.00	17.00
		End Point	1	1	4	4	4	4	4.00	4.00
		Line In	1	1	1	1	1	1	1.00	1.00
	1996	Line Out	1	1	11	11	14	14	14.00	14.00
		End Point	1	1	9	9	9	9	9.00	9.00
		Line In	1	1	2	2	2	2	2.00	2.00
	1997	Line Out	1	1	10	10	13	13	13.00	13.00
		End Point	1	1	8	8	8	8	8.00	8.00
		Line In	1	1	7	7	8	8	8.00	8.00
HEMLOCK-HARDWOOD SWAMP	1995	Line Out	1	1	14	14	19	19	18.00	18.00
		End Point	1	1	4	4	4	4	4.00	4.00
		Line In	1	1	6	6	7	7	7.00	7.00
	1996	Line Out	1	1	9	9	13	13	12.00	12.00
		End Point	1	1	10	10	12	12	12.00	12.00
		Line In	1	1	1	1	1	1	1.00	1.00
	1997	Line Out	1	1	15	15	24	24	24.00	24.00
		End Point	1	1	6	6	7	7	7.00	7.00
		Line In	1	1	6	6	6	6	6.00	6.00
HEMLOCK-NORTHERN HARDWOOD FOREST	1995	Line Out	1	1	13	13	19	19	19.00	19.00
		End Point	1	1	4	4	4	4	4.00	4.00
		Line In	1	1	1	1	1	1	1.00	1.00
	1996	Line Out	1	1	9	9	12	12	12.00	12.00
		End Point	1	1	7	7	7	7	7.00	7.00
		Line In	1	1	5	5	6	6	5.00	5.00
	1997	Line Out	1	1	9	9	10	10	10.00	10.00
		End Point	1	1	17	17	20	20	20.00	20.00
		Line In	1	1	5	5	6	6	6.00	6.00
OAK-HICKORY	1995	Line Out	5	5	29	29	62	62	12.20	12.20
		End Point	5	5	22	22	41	41	7.60	7.60
		Line In	5	5	21	21	30	30	6.00	6.00
	1996	Line Out	5	5	26	26	68	68	13.00	13.00
		End Point	5	5	22	22	48	48	9.20	9.20
		Line In	5	5	15	15	24	24	4.60	4.60
	1997	Line Out	5	5	30	30	107	107	21.00	21.00
		End Point	5	5	22	22	36	36	6.40	6.40
		Line In	5	5	21	21	36	36	7.20	7.20
SUCCESSIONAL OLD FIELD	1992	Line Out	2	2	20	20	50	50	25.00	25.00
		End Point	2	2	14	14	22	22	10.50	10.50
		Line In	2	2	17	17	32	32	15.00	15.00
	1995	Line Out	2	2	21	21	34	34	16.50	16.50
		End Point	2	2	17	17	30	30	14.50	14.50
		Line In	2	2	13	13	15	15	7.50	7.50
	1996	Line Out	2	2	24	24	37	37	17.50	17.50
		End Point	2	2	13	13	18	18	8.50	8.50
		Line In	2	2	7	7	10	10	4.50	4.50
	1997	Line Out	2	2	33	33	100	100	50.00	50.00
		End Point	2	2	25	25	62	62	30.50	30.50
		Line In	2	2	14	14	21	21	10.00	10.00

# Installation Summary by Vegetation Groupings

Table F6. Vegetation types for West Point special use plots, by mated status.

Table F6. Vegetation types for West Point special use plots, by mated status.														
Vegetation Type	Mated Status	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	Singing Male	1995	1	1	0	16	16	0	22	22	0	22.00	22.00	0
		1996	1	1	0	18	18	0	25	25	0	25.00	25.00	0
		1997	1	1	0	18	18	0	28	28	0	28.00	28.00	0
	Flock	1997	1	0	1	1	0	1	21	0	21	21.00	0	21.00
	Unknown	1997	1	1	1	2	1	1	3	1	2	3.00	1.00	2.00
HEMLOCK-HARDWOOD SWAMP	Singing Male	1995	1	1	0	19	19	0	25	25	0	25.00	25.00	0
		1996	1	1	0	15	15	0	23	23	0	23.00	23.00	0
		1997	1	1	0	23	23	0	31	31	0	31.00	31.00	0
	Adult Male/Female	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	Unknown	1995	1	1	0	3	3	0	3	3	0	3.00	3.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	6	6	0	6.00	6.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	Singing Male	1995	1	1	1	15	14	1	25	24	1	25.00	24.00	1.00
		1996	1	1	0	18	18	0	22	22	0	22.00	22.00	0
		1997	1	1	0	26	26	0	34	34	0	34.00	34.00	0
	Adult Male/Female	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	Unknown	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2	2	0	2.00	2.00	0
OAK-HICKORY	Singing Male	1995	5	5	0	36	36	0	112	112	0	22.40	22.40	0
		1996	5	5	0	34	34	0	115	115	0	23.00	23.00	0
		1997	5	5	0	37	37	0	142	142	0	28.40	28.40	0
	Female Only	1995	5	1	0	1	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	1	1	0	0.20	0.20	0
	Non-singing Male	1995	5	1	0	1	1	0	1	1	0	0.20	0.20	0
		1997	5	2	0	3	3	0	3	3	0	0.60	0.60	0
	Not Recorded	1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
	Adult Male/Female	1995	5	3	0	4	4	0	4	4	0	0.80	0.80	0
		1996	5	4	0	5	5	0	6	6	0	1.20	1.20	0
		1997	5	4	0	5	5	0	6	6	0	1.20	1.20	0
	Unknown	1995	5	5	0	10	10	0	11	11	0	2.20	2.20	0
		1996	5	4	2	12	10	2	15	13	2	3.00	2.60	0.40
		1997	5	4	2	8	6	2	17	15	2	3.40	3.00	0.40
SUCCESSIONAL OLD FIELD	Singing Male	1992	2	2	0	30	30	0	59	59	0	29.50	29.50	0
		1995	2	2	1	38	36	3	70	67	3	35.00	33.50	1.50
		1996	2	2	1	32	31	1	57	55	2	28.50	27.50	1.00
		1997	2	2	0	41	41	0	96	96	0	48.00	48.00	0
	Female Only	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	Flock	1996	2	0	1	2	0	2	12	0	12	6.00	0.00	6.00
	Non-singing Male	1992	2	1	0	1	1	0	7	7	0	3.50	3.50	0
		1996	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	Not Recorded	1997	2	2	0	9	9	0	69	69	0	34.50	34.50	0
	Adult Male/Female	1992	2	2	0	3	3	0	3	3	0	1.50	1.50	0
		1995	2	1	0	2	2	0	2	2	0	1.00	1.00	0
		1996	2	2	0	4	4	0	4	4	0	2.00	2.00	0
1997		2	1	0	2	2	0	2	2	0	1.00	1.00	0	

# Installation Summary by Vegetation Groupings

Vegetation Type	Mated Status	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Unknown	1992	2	2	1	7	6	1	31	30	1	15.50	15.00	0.50
		1995	2	2	0	7	7	0	8	8	0	4.00	4.00	0
		1996	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	2	1	8	7	1	13	12	1	6.50	6.00	0.50

# Installation Summary by Vegetation Groupings

Table F7. Vegetation types for West Point special use plots, by species.

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	Bluebird, Eastern	1997	1	1	0	2	2	0	2.00	2.00	0
	Catbird, Gray	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Chickadee, Black-capped	1995	1	1	0	1	1	0	1.00	1.00	0
	Cowbird, Brown-headed	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Cuckoo, Black-billed	1996	1	1	0	1	1	0	1.00	1.00	0
	Flycatcher, Great-crested	1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Goose, Canada	1997	1	0	1	21	0	21	21.00	0	21.00
	Jay, Blue	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Oriole, Northern	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Pewee, Eastern Wood	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Robin, American	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Sparrow, Field	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Tanager, Scarlet	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	3	3	0	3.00	3.00	0
	Thrush, Hermit	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Thrush, Wood	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Titmouse, Tufted	1995	1	1	0	1	1	0	1.00	1.00	0
	Towhee, Rufous-sided	1995	1	1	0	3	3	0	3.00	3.00	0
		1996	1	1	0	3	3	0	3.00	3.00	0
		1997	1	1	0	3	3	0	3.00	3.00	0
	Veery	1997	1	1	0	2	2	0	2.00	2.00	0
	Vireo, Red-eyed	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Vulture, Turkey	1997	1	0	1	2	0	2	2.00	0	2.00
	Warbler, Black-and-white	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Prairie	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
	Waterthrush, Louisiana	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
HEMLOCK-HARDWOOD SWAMP	Waxwing, Cedar	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Yellowthroat, Common	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Bunting, Indigo	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Catbird, Gray	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Chickadee, Black-capped	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
	Cowbird, Brown-headed	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Flicker, Northern	1996	1	1	0	2	2	0	2.00	2.00	0
	Flycatcher, Great-crested	1997	1	1	0	1	1	0	1.00	1.00	0
	Gnatcatcher, Blue-gray	1995	1	1	0	1	1	0	1.00	1.00	0
	Goldfinch, American	1997	1	1	0	1	1	0	1.00	1.00	0
	Grouse, Ruffed	1995	1	1	0	1	1	0	1.00	1.00	0
	Jay, Blue	1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Kingbird, Eastern	1997	1	1	0	1	1	0	1.00	1.00	0
	Nuthatch, White-breasted	1997	1	1	0	1	1	0	1.00	1.00	0
	Ovenbird	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Owl, Great Horned	1995	1	1	0	1	1	0	1.00	1.00	0
	Pewee, Eastern Wood	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Phoebe, Eastern	1997	1	1	0	1	1	0	1.00	1.00	0
	Redstart, American	1997	1	1	0	1	1	0	1.00	1.00	0
	Robin, American	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
	Sparrow, Chipping	1995	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Tanager, Scarlet	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Thrush, Hermit	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Thrush, Swainson's	1997	1	1	0	1	1	0	1.00	1.00	0
	Thrush, Wood	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Towhee, Rufous-sided	1995	1	1	0	3	3	0	3.00	3.00	0
		1996	1	1	0	4	4	0	3.00	3.00	0
		1997	1	1	0	4	4	0	4.00	4.00	0
	Veery	1995	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
HEMLOCK-NORTHERN HARDWOOD FOREST	Vireo, Red-eyed	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	3	3	0	3.00	3.00	0
	Vireo, Solitary	1995	1	1	0	3	3	0	2.00	2.00	0
	Warbler, Black-and-white	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	3	3	0	3.00	3.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Warbler, Canada	1995	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Chestnut-sided	1995	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Prairie	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	3	3	0	3.00	3.00	0
	Warbler, Yellow	1995	1	1	0	1	1	0	1.00	1.00	0
	Waterthrush, Louisiana	1996	1	1	0	2	2	0	2.00	2.00	0
	Waxwing, Cedar	1997	1	1	0	2	2	0	2.00	2.00	0
	Woodpecker, Hairy	1996	1	1	0	1	1	0	1.00	1.00	0
	Wren, Winter	1997	1	1	0	1	1	0	1.00	1.00	0
	Blackbird, Red-winged	1997	1	1	0	3	3	0	3.00	3.00	0
	Cardinal, Northern	1995	1	1	0	1	1	0	1.00	1.00	0
	Catbird, Gray	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Chickadee, Black-capped	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Cowbird, Brown-headed	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Crow, American	1996	1	1	0	2	2	0	1.00	1.00	0
	Flicker, Northern	1995	1	1	0	2	2	0	2.00	2.00	0
	Flycatcher, Acadian	1995	1	1	0	1	1	0	1.00	1.00	0
	Flycatcher, Great-crested	1996	1	1	0	1	1	0	1.00	1.00	0
	Gnatcatcher, Blue-gray	1996	1	1	0	1	1	0	1.00	1.00	0
	Goldfinch, American	1996	1	1	0	2	2	0	2.00	2.00	0
	Grackle, Common	1996	1	1	0	1	1	0	1.00	1.00	0
	Grosbeak, Rose-breasted	1996	1	1	0	1	1	0	1.00	1.00	0
	Jay, Blue	1995	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
	Kingbird, Eastern	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Oriole, Northern	1997	1	1	0	1	1	0	1.00	1.00	0
	Ovenbird	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Owl, Barred	1995	1	0	1	1	0	1	1.00	0	1.00
	Pewee, Eastern Wood	1997	1	1	0	1	1	0	1.00	1.00	0
	Redstart, American	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Tanager, Scarlet	1995	1	1	0	3	3	0	3.00	3.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	3	3	0	3.00	3.00	0
	Thrush, Hermit	1997	1	1	0	1	1	0	1.00	1.00	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Thrush, Wood	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Titmouse, Tufted	1997	1	1	0	1	1	0	1.00	1.00	0
	Towhee, Rufous-sided	1995	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Veery	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	3	3	0	3.00	3.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Vireo, Red-eyed	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Vireo, Solitary	1995	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Vireo, Yellow-throated	1996	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Black-and-white	1995	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Blackburnian	1997	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Black-throated Green	1995	1	1	0	3	3	0	3.00	3.00	0
		1997	1	1	0	2	2	0	2.00	2.00	0
	Warbler, Chestnut-sided	1997	1	1	0	1	1	0	1.00	1.00	0
	Warbler, Yellow	1996	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1.00	1.00	0
	Waxwing, Cedar	1997	1	1	0	1	1	0	1.00	1.00	0
	Woodpecker, Pileated	1997	1	1	0	1	1	0	1.00	1.00	0
	Woodpecker, Red-bellied	1997	1	1	0	1	1	0	1.00	1.00	0
	Yellowthroat, Common	1997	1	1	0	2	2	0	2.00	2.00	0
OAK-HICKORY	Blackbird, Red-winged	1996	5	0	1	1	0	1	0.20	0.00	0.20
	Bluebird, Eastern	1995	5	1	0	3	3	0	0.60	0.60	0
	Cardinal, Northern	1995	5	1	0	1	1	0	0.20	0.20	0
		1997	5	2	0	2	2	0	0.40	0.40	0
	Catbird, Gray	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	2	2	0	0.40	0.40	0
	Chickadee, Black-capped	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	2	0	2	2	0	0.40	0.40	0
		1997	5	3	0	5	5	0	0.80	0.80	0
	Cowbird, Brown-headed	1995	5	4	0	6	6	0	1.20	1.20	0
		1996	5	2	0	2	2	0	0.40	0.40	0
		1997	5	5	0	11	11	0	2.00	2.00	0
	Creeper, Brown	1995	5	1	0	1	1	0	0.20	0.20	0
	Crow, American	1995	5	1	0	2	2	0	0.40	0.40	0
		1996	5	1	0	4	4	0	0.80	0.80	0
		1997	5	2	0	2	2	0	0.40	0.40	0
	Cuckoo, Black-billed	1995	5	1	0	1	1	0	0.20	0.20	0
	Cuckoo, Yellow-billed	1995	5	1	0	1	1	0	0.20	0.20	0
	Flicker, Northern	1995	5	3	0	4	4	0	0.80	0.80	0
		1996	5	3	0	6	6	0	1.00	1.00	0
		1997	5	2	0	2	2	0	0.40	0.40	0



# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Flycatcher, Great-crested	1995	5	3	0	5	5	0	1.00	1.00	0
		1996	5	4	0	6	6	0	1.20	1.20	0
		1997	5	4	0	7	7	0	1.40	1.40	0
	Gnatcatcher, Blue-gray	1995	5	2	0	3	3	0	0.40	0.40	0
		1996	5	2	0	4	4	0	0.80	0.80	0
		1997	5	3	0	4	4	0	0.60	0.60	0
	Goldfinch, American	1995	5	2	0	2	2	0	0.40	0.40	0
	Goose, Canada	1997	5	1	0	6	6	0	1.20	1.20	0
	Grackle, Common	1995	5	2	0	4	4	0	0.80	0.80	0
		1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Grosbeak, Rose-breasted	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	1	0	2	2	0	0.40	0.40	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Hawk, Red-tailed	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	0	1	1	0	1	0.20	0	0.20
	Heron, Great Blue	1997	5	1	1	3	2	1	0.40	0.20	0.20
	Jay, Blue	1995	5	2	0	3	3	0	0.60	0.60	0
		1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	3	0	5	5	0	1.00	1.00	0
	Nuthatch, White-breasted	1995	5	2	0	2	2	0	0.40	0.40	0
		1996	5	3	0	3	3	0	0.60	0.60	0
		1997	5	4	0	10	10	0	1.60	1.60	0
	Oriole, Northern	1995	5	5	0	9	9	0	1.80	1.80	0
		1996	5	5	0	8	8	0	1.60	1.60	0
		1997	5	5	0	15	15	0	3.00	3.00	0
	Ovenbird	1995	5	2	0	2	2	0	0.40	0.40	0
		1996	5	3	0	7	7	0	1.40	1.40	0
		1997	5	3	0	5	5	0	1.00	1.00	0
	Owl, Barred	1995	5	1	0	1	1	0	0.20	0.20	0
	Parula, Northern	1996	5	1	0	1	1	0	0.20	0.20	0
	Pewee, Eastern Wood	1995	5	5	0	10	10	0	1.80	1.80	0
		1996	5	4	0	5	5	0	1.00	1.00	0
		1997	5	5	0	10	10	0	2.00	2.00	0
	Phoebe, Eastern	1995	5	2	0	3	3	0	0.60	0.60	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Redstart, American	1995	5	1	0	2	2	0	0.40	0.40	0
		1996	5	4	0	6	6	0	1.00	1.00	0
		1997	5	4	0	7	7	0	1.40	1.40	0
	Robin, American	1995	5	4	0	11	11	0	2.00	2.00	0
		1996	5	3	0	9	9	0	1.60	1.60	0
		1997	5	4	0	10	10	0	2.00	2.00	0
	Sparrow, Chipping	1995	5	3	0	8	8	0	1.60	1.60	0
		1996	5	3	0	7	7	0	1.40	1.40	0
		1997	5	4	0	7	7	0	1.40	1.40	0
	Tanager, Scarlet	1995	5	5	0	11	11	0	2.00	2.00	0
		1996	5	5	0	12	12	0	2.00	2.00	0
		1997	5	4	0	11	11	0	2.20	2.20	0
	Thrush, Hermit	1995	5	2	0	2	2	0	0.40	0.40	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Thrush, Wood	1995	5	2	0	3	3	0	0.60	0.60	0
		1996	5	3	0	5	5	0	1.00	1.00	0
		1997	5	1	0	3	3	0	0.60	0.60	0
	Titmouse, Tufted	1995	5	3	0	3	3	0	0.60	0.60	0
		1996	5	2	0	5	5	0	1.00	1.00	0
		1997	5	2	0	2	2	0	0.40	0.40	0
	Towhee, Rufous-sided	1995	5	2	0	2	2	0	0.40	0.40	0
		1996	5	3	0	3	3	0	0.60	0.60	0
		1997	5	4	0	5	5	0	1.00	1.00	0
	Turkey, Wild	1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	2	0	2	2	0	0.40	0.40	0
	Veery	1996	5	2	0	2	2	0	0.40	0.40	0
		1997	5	2	0	2	2	0	0.40	0.40	0
	Vireo, Red-eyed	1995	5	4	0	6	6	0	1.20	1.20	0
		1996	5	5	0	12	12	0	2.40	2.40	0
		1997	5	4	0	11	11	0	2.20	2.20	0
	Vireo, Solitary	1996	5	1	0	2	2	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Vireo, Warbling	1995	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Vireo, Yellow-throated	1995	5	2	0	2	2	0	0.40	0.40	0
		1996	5	3	0	4	4	0	0.80	0.80	0
		1997	5	3	0	3	3	0	0.60	0.60	0
	Vulture, Turkey	1997	5	0	1	1	0	1	0.20	0	0.20
	Warbler, Black-and-white	1995	5	4	0	5	5	0	1.00	1.00	0
		1996	5	1	0	2	2	0	0.40	0.40	0
		1997	5	3	0	3	3	0	0.60	0.60	0
	Warbler, Blackburnian	1997	5	1	0	1	1	0	0.20	0.20	0
	Warbler, Cerulean	1995	5	2	0	3	3	0	0.60	0.60	0
		1996	5	1	0	2	2	0	0.40	0.40	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Warbler, Chestnut-sided	1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Warbler, Hooded	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	1	0	4	4	0	0.80	0.80	0
		1997	5	1	0	4	4	0	0.80	0.80	0
	Warbler, Prairie	1996	5	1	0	2	2	0	0.40	0.40	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Warbler, Tennessee	1997	5	1	0	1	1	0	0.20	0.20	0
	Warbler, Yellow	1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	2	2	0	0.40	0.40	0
	Warbler, Yellow-rumped	1997	5	1	0	1	1	0	0.20	0.20	0
	Waterthrush, Louisiana	1996	5	1	0	1	1	0	0.20	0.20	0
	Waxwing, Cedar	1997	5	1	0	6	6	0	1.20	1.20	0
	Woodcock, American	1995	5	1	0	1	1	0	0.20	0.20	0
	Woodpecker, Downy	1995	5	1	0	2	2	0	0.40	0.40	0
		1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Woodpecker, Hairy	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	2	0	2	2	0	0.40	0.40	0
		1997	5	1	0	1	1	0	0.20	0.20	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
SUCCESSIONAL OLD FIELD	Woodpecker, Pileated	1995	5	1	0	1	1	0	0.20	0.20	0
		1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Woodpecker, Red-bellied	1995	5	1	0	1	1	0	0.20	0.20	0
	Yellowthroat, Common	1996	5	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	0.20	0.20	0
	Blackbird, Red-winged	1992	2	1	0	16	16	0	8.00	8.00	0
		1995	2	1	0	6	6	0	3.00	3.00	0
		1996	2	1	0	3	3	0	1.00	1.00	0
		1997	2	1	0	5	5	0	2.00	2.00	0
	Bobolink	1992	2	1	0	2	2	0	1.00	1.00	0
		1995	2	1	1	2	1	1	1.00	0.50	0.50
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Bunting, Indigo	1995	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	2	2	0	1.00	1.00	0
	Cardinal, Northern	1995	2	1	0	1	1	0	0.50	0.50	0
	Catbird, Gray	1992	2	2	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	4	4	0	2.00	2.00	0
	Cowbird, Brown-headed	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	1	1	8	3	5	3.50	1.00	2.50
		1997	2	2	0	3	3	0	1.50	1.50	0
	Crow, American	1992	2	1	0	18	18	0	9.00	9.00	0
		1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	3	3	0	1.50	1.50	0
	Crow, Fish	1996	2	1	0	1	1	0	0.50	0.50	0
	Cuckoo, Black-billed	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	0.50	0.50	0
	Dove, Mourning	1992	2	2	0	2	2	0	1.00	1.00	0
	Flicker, Northern	1992	2	1	0	4	4	0	1.50	1.50	0
		1995	2	2	0	4	4	0	1.50	1.50	0
		1996	2	2	0	2	2	0	1.00	1.00	0
		1997	2	2	0	3	3	0	1.50	1.50	0
	Flycatcher, Alder	1992	2	1	0	1	1	0	0.50	0.50	0
	Flycatcher, Great-crested	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	2	0	3	3	0	1.50	1.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Flycatcher, Willow	1995	2	0	1	1	0	1	0.50	0	0.50
	Gnatcatcher, Blue-gray	1995	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Goldfinch, American	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	3	3	0	1.50	1.50	0
		1996	2	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	9	9	0	4.50	4.50	0
	Goose, Canada	1997	2	1	0	57	57	0	28.50	28.50	0
	Grackle, Common	1996	2	0	1	7	0	7	3.50	0	3.50
		1997	2	1	0	1	1	0	0.50	0.50	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Grosbeak, Rose-breasted	1995	2	1	0	3	3	0	1.50	1.50	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Hawk, Broad-winged	1997	2	1	0	2	2	0	0.50	0.50	0
	Jay, Blue	1992	2	1	0	2	2	0	1.00	1.00	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	2	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Killdeer	1992	2	1	0	2	2	0	1.00	1.00	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Kingbird, Eastern	1997	2	1	0	1	1	0	0.50	0.50	0
	Mallard	1992	2	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Meadowlark, Eastern	1997	2	1	0	1	1	0	0.50	0.50	0
	Mockingbird, Northern	1992	2	1	0	2	2	0	1.00	1.00	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Nuthatch, White-breasted	1995	2	1	0	2	2	0	0.50	0.50	0
		1996	2	1	0	1	1	0	0.50	0.50	0
	Oriole, Northern	1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	4	4	0	2.00	2.00	0
	Ovenbird	1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	3	3	0	1.50	1.50	0
	Owl, Barred	1992	2	1	0	2	2	0	1.00	1.00	0
	Pewee, Eastern Wood	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	2	2	0	1.00	1.00	0
	Phoebe, Eastern	1995	2	1	0	1	1	0	0.50	0.50	0
	Redstart, American	1992	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	3	3	0	1.50	1.50	0
	Robin, American	1992	2	2	0	9	9	0	4.50	4.50	0
		1995	2	2	0	3	3	0	1.50	1.50	0
		1996	2	2	0	6	6	0	2.50	2.50	0
		1997	2	2	0	8	8	0	4.00	4.00	0
	Sparrow, Chipping	1995	2	2	0	2	2	0	1.00	1.00	0
		1996	2	2	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Sparrow, Field	1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	6	6	0	3.00	3.00	0
	Sparrow, Song	1992	2	1	1	5	4	1	2.50	2.00	0.50
		1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	4	4	0	2.00	2.00	0
		1997	2	1	0	4	4	0	2.00	2.00	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Starling, European	1992	2	1	0	5	5	0	2.50	2.50	0
	Swallow, Barn	1997	2	1	0	2	2	0	1.00	1.00	0
	Tanager, Scarlet	1992	2	1	0	2	2	0	1.00	1.00	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	2	2	0	1.00	1.00	0
	Thrush, Wood	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	2	2	0	1.00	1.00	0
		1997	2	2	0	5	5	0	2.50	2.50	0
	Titmouse, Tufted	1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	1	0	1	1	0	0.50	0.50	0
	Towhee, Rufous-sided	1995	2	2	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	3	3	0	1.50	1.50	0
	Turkey, Wild	1997	2	1	0	1	1	0	0.50	0.50	0
	Veery	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1996	2	2	0	4	4	0	2.00	2.00	0
		1997	2	2	0	4	4	0	2.00	2.00	0
	Vireo, Red-eyed	1992	2	1	0	3	3	0	1.50	1.50	0
		1995	2	2	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	4	4	0	2.00	2.00	0
	Vireo, Warbling	1992	2	1	0	2	2	0	1.00	1.00	0
	Vireo, White-eyed	1995	2	0	1	1	0	1	0.50	0	0.50
	Vireo, Yellow-throated	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Vulture, Turkey	1997	2	0	1	1	0	1	0.50	0.00	0.50
	Warbler, Black-and-white	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Warbler, Blue-winged	1995	2	1	0	3	3	0	1.50	1.50	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	2	2	0	1.00	1.00	0
	Warbler, Cerulean	1992	2	1	0	3	3	0	1.00	1.00	0
		1996	2	0	1	2	0	2	1.00	0	1.00
		1997	2	1	0	2	2	0	1.00	1.00	0
	Warbler, Chestnut-sided	1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	3	3	0	1.50	1.50	0
	Warbler, Golden-winged	1997	2	1	0	1	1	0	0.50	0.50	0
	Warbler, Prairie	1995	2	1	0	4	4	0	2.00	2.00	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	5	5	0	2.50	2.50	0
	Warbler, Yellow	1992	2	1	0	4	4	0	2.00	2.00	0
		1995	2	1	0	3	3	0	1.50	1.50	0
		1996	2	2	0	4	4	0	2.00	2.00	0
		1997	2	2	0	7	7	0	3.50	3.50	0
	Waterthrush, Louisiana	1997	2	1	0	2	2	0	1.00	1.00	0

# Installation Summary by Vegetation Groupings

Vegetation Type	Species	Year	Total Plots	Site Plots	FO Plots	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	Woodpecker, Downy	1995	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Woodpecker, Hairy	1992	2	1	0	1	1	0	0.50	0.50	0
		1996	2	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	0.50	0.50	0
	Woodpecker, Pileated	1997	2	1	0	1	1	0	0.50	0.50	0
	Woodpecker, Red-bellied	1992	2	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	0.50	0.50	0
	Wren, House	1996	2	1	0	2	2	0	1.00	1.00	0
	Yellowthroat, Common	1992	2	2	0	4	4	0	2.00	2.00	0
		1995	2	2	0	5	5	0	2.50	2.50	0
		1996	2	2	0	3	3	0	1.50	1.50	0
		1997	2	2	0	5	5	0	2.50	2.50	0

## **Appendix G: West Point Guild Summary Information**

# Guild Summaries

**Table G1. Guild summaries for West Point special use plots, by neotropical status.**

Neotropical Status	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
Class A	1992	2	2	0	15	15	0	29	29	0	14.00	14.00	0
	1995	10	10	0	31	31	0	168	168	0	16.40	16.40	0
	1996	10	10	1	29	29	1	175	173	2	17.10	16.90	0.20
	1997	10	10	0	33	33	0	239	239	0	23.70	23.70	0
Class B	1992	2	2	1	9	9	1	42	41	1	20.50	20.00	0.50
	1995	10	10	0	15	15	0	74	74	0	7.20	7.20	0
	1996	10	10	3	11	10	3	68	61	7	6.10	5.40	0.70
	1997	10	10	0	14	14	0	100	100	0	9.80	9.80	0
Resident	1992	2	2	0	6	6	0	26	26	0	12.50	12.50	0
	1995	10	10	1	14	14	1	44	43	1	4.30	4.20	0.10
	1996	10	10	1	11	11	1	49	42	7	4.80	4.10	0.70
	1997	10	10	1	16	16	1	141	120	21	13.80	11.70	2.10



# Guild Summaries

**Table G2. Guild summaries for West Point special use plots, by nest location.**

Nest Location	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
GROUND	1992	2	2	1	5	5	1	11	10	1	5.00	4.50	0.50
	1995	10	10	0	12	12	0	48	48	0	4.80	4.80	0
	1996	10	10	0	10	10	0	51	51	0	5.00	5.00	0
	1997	10	10	1	14	14	1	153	132	21	15.30	13.20	2.10
MAN-MADE STRUCTURE	1995	10	3	0	1	1	0	4	4	0	0.40	0.40	0
	1997	10	3	0	2	2	0	4	4	0	0.40	0.40	0
REED	1992	2	1	0	1	1	0	16	16	0	8.00	8.00	0
	1995	10	1	0	1	1	0	6	6	0	0.60	0.60	0
	1996	10	1	1	1	1	1	4	3	1	0.30	0.20	0.10
	1997	10	2	0	1	1	0	8	8	0	0.70	0.70	0
SHRUB	1992	2	2	0	6	6	0	16	16	0	8.00	8.00	0
	1995	10	9	0	11	11	0	44	44	0	4.40	4.40	0
	1996	10	10	0	10	10	0	52	52	0	5.10	5.10	0
	1997	10	10	0	12	12	0	87	87	0	8.70	8.70	0
SNAG	1992	2	1	0	3	3	0	7	7	0	3.00	3.00	0
	1995	10	8	1	6	6	1	21	20	1	2.00	1.90	0.10
	1996	10	7	0	3	3	0	12	12	0	1.10	1.10	0
	1997	10	8	0	6	6	0	14	14	0	1.40	1.40	0
WOODY LOWER CANOPY	1992	2	2	0	5	5	0	16	16	0	8.00	8.00	0
	1995	10	10	0	12	12	0	64	64	0	6.10	6.10	0
	1996	10	10	1	12	12	1	73	66	7	6.90	6.20	0.70
	1997	10	10	0	10	10	0	70	70	0	6.80	6.80	0
WOODY UPPER CANOPY	1992	2	2	0	10	10	0	31	31	0	15.00	15.00	0
	1995	10	10	0	17	17	0	99	99	0	9.60	9.60	0
	1996	10	10	3	15	14	3	100	92	8	9.60	8.80	0.80
	1997	10	10	0	18	18	0	144	144	0	14.00	14.00	0

# Guild Summaries

Table G3. Guild summaries for West Point special use plots, by nest type.

Nest Type	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
CAVITY	1992	2	1	0	5	5	0	9	9	0	4.00	4.00	0
	1995	10	10	1	11	11	1	43	42	1	4.10	4.00	0.10
	1996	10	10	0	9	9	0	42	42	0	4.10	4.10	0
	1997	10	10	0	11	11	0	48	48	0	4.50	4.50	0
CUP	1992	2	2	1	19	19	1	78	77	1	38.50	38.00	0.50
	1995	10	10	0	40	40	0	193	193	0	18.90	18.90	0
	1996	10	10	3	34	34	3	195	185	10	18.70	17.70	1.00
	1997	10	10	0	43	43	0	272	272	0	27.00	27.00	0
OVEN	1995	10	4	0	1	1	0	5	5	0	0.50	0.50	0
	1996	10	6	0	1	1	0	10	10	0	1.00	1.00	0
	1997	10	7	0	1	1	0	11	11	0	1.10	1.10	0
PARASITIC	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	1995	10	7	0	1	1	0	9	9	0	0.90	0.90	0
	1996	10	6	1	1	1	1	13	8	5	1.20	0.70	0.50
	1997	10	10	0	1	1	0	17	17	0	1.60	1.60	0
PENDANT	1995	10	7	0	1	1	0	12	12	0	1.20	1.20	0
	1996	10	7	0	2	2	0	11	11	0	1.10	1.10	0
	1997	10	9	0	1	1	0	22	22	0	2.20	2.20	0
PLATFORM	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	1995	10	3	0	3	3	0	4	4	0	0.40	0.40	0
	1996	10	1	1	2	1	1	2	1	1	0.20	0.10	0.10
	1997	10	1	0	1	1	0	2	2	0	0.10	0.10	0
SAUCER	1992	2	2	0	2	2	0	4	4	0	2.00	2.00	0
	1995	10	9	0	1	1	0	18	18	0	1.70	1.70	0
	1996	10	9	0	1	1	0	18	18	0	1.60	1.60	0
	1997	10	8	0	1	1	0	21	21	0	2.10	2.10	0
SCRAPE	1992	2	1	0	2	2	0	4	4	0	1.50	1.50	0
	1995	10	2	0	2	2	0	2	2	0	0.20	0.20	0
	1996	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	2	1	4	4	1	87	66	21	8.70	6.60	2.10

# Guild Summaries

Table G4. Guild summaries for West Point special use plots, by food type.

Food	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
AQUATIC INVERTS	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1996	10	3	0	1	1	0	4	4	0	0.40	0.40	0
	1997	10	1	0	1	1	0	2	2	0	0.20	0.20	0
FRUIT	1995	10	1	0	1	1	0	2	2	0	0.20	0.20	0
	1996	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	4	0	1	1	0	10	10	0	1.00	1.00	0
GREENS	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	2	1	1	1	1	84	63	21	8.40	6.30	2.10
INSECTS	1992	2	2	1	26	26	1	90	89	1	44.00	43.50	0.50
	1995	10	10	0	54	54	0	274	274	0	26.70	26.70	0
	1996	10	10	3	46	46	4	281	266	15	27.00	25.50	1.50
	1997	10	10	0	56	56	0	370	370	0	36.40	36.40	0
SEEDS	1992	2	2	0	3	3	0	5	5	0	2.00	2.00	0
	1995	10	3	0	1	1	0	5	5	0	0.50	0.50	0
	1996	10	3	0	2	2	0	5	5	0	0.40	0.40	0
	1997	10	2	0	3	3	0	12	12	0	1.20	1.20	0
SMALL MAMMALS	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	1995	10	2	1	2	2	1	3	2	1	0.30	0.20	0.10
	1996	10	0	1	1	0	1	1	0	1	0.10	0	0.10
	1997	10	1	0	1	1	0	2	2	0	0.10	0.10	0

# Guild Summaries

Table G5. Guild summaries for West Point special use plots, by feeding substrate.

Substrate	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
AIR	1992	2	1	0	5	5	0	9	9	0	4.50	4.50	0
	1995	10	10	0	9	9	0	66	66	0	6.40	6.40	0
	1996	10	9	0	6	6	0	63	63	0	6.00	6.00	0
	1997	10	10	0	9	9	0	90	90	0	9.00	9.00	0
BARK	1992	2	1	0	3	3	0	3	3	0	1.50	1.50	0
	1995	10	9	0	7	7	0	23	23	0	2.20	2.20	0
	1996	10	8	0	5	5	0	17	17	0	1.70	1.70	0
	1997	10	10	0	6	6	0	27	27	0	2.50	2.50	0
FOLIAGE	1992	2	2	0	7	7	0	16	16	0	7.50	7.50	0
	1995	10	10	0	22	22	0	80	80	0	7.80	7.80	0
	1996	10	10	1	19	19	1	74	72	2	7.20	7.00	0.20
	1997	10	10	0	23	23	0	118	118	0	11.60	11.60	0
GROUND	1992	2	2	1	14	14	1	67	66	1	33.00	32.50	0.50
	1995	10	10	1	22	22	1	117	116	1	11.50	11.40	0.10
	1996	10	10	3	21	20	4	138	124	14	13.10	11.70	1.40
	1997	10	10	0	23	23	0	160	160	0	15.70	15.70	0
WATER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
	1997	10	2	1	2	2	1	85	64	21	8.50	6.40	2.10

Guild Summaries

Table G6. Guild summaries for West Point special use plots, by foraging technique.

Technique	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
AERIAL FORAGING	1997	10	1	0	1	1	0	2	2	0	0.20	0.20	0
BARK GLEANER	1992	2	1	0	3	3	0	3	3	0	1.50	1.50	0
	1995	10	9	0	7	7	0	23	23	0	2.20	2.20	0
	1996	10	8	0	5	5	0	17	17	0	1.70	1.70	0
	1997	10	10	0	6	6	0	27	27	0	2.50	2.50	0
DABBLER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
	1997	10	1	0	1	1	0	1	1	0	0.10	0.10	0
FOLIAGE BROWSER	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
FOLIAGE GLEANER	1992	2	2	0	6	6	0	15	15	0	7.00	7.00	0
	1995	10	10	0	20	20	0	77	77	0	7.50	7.50	0
	1996	10	10	1	18	18	1	73	71	2	7.10	6.90	0.20
	1997	10	10	0	23	23	0	118	118	0	11.60	11.60	0
GROUND GLEANER	1992	2	2	1	12	12	1	47	46	1	23.00	22.50	0.50
	1995	10	10	0	19	19	0	110	110	0	10.80	10.80	0
	1996	10	10	2	19	19	3	130	117	13	12.40	11.10	1.30
	1997	10	10	0	21	21	0	153	153	0	15.10	15.10	0
HAWKER	1992	2	1	0	2	2	0	2	2	0	1.00	1.00	0
	1995	10	10	0	5	5	0	31	31	0	3.00	3.00	0
	1996	10	8	0	3	3	0	18	18	0	1.80	1.80	0
	1997	10	10	0	5	5	0	33	33	0	3.30	3.30	0
HIGH PATROL	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1996	10	0	1	1	0	1	1	0	1	0.10	0	0.10
HOVER GLEANER	1992	2	1	0	3	3	0	7	7	0	3.50	3.50	0
	1995	10	10	0	4	4	0	35	35	0	3.40	3.40	0
	1996	10	9	0	3	3	0	45	45	0	4.20	4.20	0
	1997	10	9	0	3	3	0	55	55	0	5.50	5.50	0
LOW PATROL	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	1995	10	1	1	1	1	1	2	1	1	0.20	0.10	0.10
SCAVENGER	1992	2	1	0	2	2	0	19	19	0	9.50	9.50	0
	1995	10	3	0	2	2	0	6	6	0	0.60	0.60	0
	1996	10	4	0	2	2	0	8	8	0	0.70	0.70	0
	1997	10	3	0	1	1	0	5	5	0	0.50	0.50	0
SURFACE DIPS	1997	10	2	1	1	1	1	84	63	21	8.40	6.30	2.10
SWOOPER	1997	10	1	0	1	1	0	2	2	0	0.10	0.10	0

# Guild Summaries

Table G7. Guild summaries for West Point special use plots, by habitat type.

Habitat	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
FOREST	1992	2	2	0	18	18	0	55	55	0	26.50	26.50	0
	1995	10	10	1	37	37	1	186	185	1	17.90	17.80	0.10
	1996	10	10	2	32	31	2	193	190	3	18.50	18.20	0.30
	1997	10	10	0	36	36	0	232	232	0	22.70	22.70	0
FOREST EDGE	1992	2	2	0	4	4	0	8	8	0	4.00	4.00	0
	1995	10	10	0	7	7	0	50	50	0	5.00	5.00	0
	1996	10	10	1	6	6	1	49	44	5	4.70	4.20	0.50
	1997	10	10	0	7	7	0	80	80	0	7.90	7.90	0
FRESHWATER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
	1997	10	1	0	2	2	0	3	3	0	0.30	0.30	0
GRASSLAND	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	1995	10	4	0	2	2	0	9	9	0	0.90	0.90	0
	1996	10	3	1	2	2	1	13	6	7	1.20	0.50	0.70
	1997	10	3	0	3	3	0	13	13	0	1.30	1.30	0
RIPARIAN	1992	2	1	1	2	2	1	9	8	1	4.50	4.00	0.50
	1995	10	7	0	5	5	0	12	12	0	1.20	1.20	0
	1996	10	7	0	4	4	0	15	15	0	1.50	1.50	0
	1997	10	6	0	5	5	0	21	21	0	2.10	2.10	0
SHORELINE	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	1995	10	1	0	1	1	0	1	1	0	0.10	0.10	0
	1997	10	1	0	1	1	0	1	1	0	0.10	0.10	0
SHRUBLAND	1992	2	2	0	2	2	0	4	4	0	2.00	2.00	0
	1995	10	5	0	7	7	0	22	22	0	2.20	2.20	0
	1996	10	5	0	6	6	0	18	18	0	1.80	1.80	0
	1997	10	9	0	7	7	0	38	38	0	3.80	3.80	0
SWAMP/MARSH	1992	2	1	0	1	1	0	16	16	0	8.00	8.00	0
	1995	10	1	0	1	1	0	6	6	0	0.60	0.60	0
	1996	10	1	1	1	1	1	4	3	1	0.30	0.20	0.10
	1997	10	3	1	2	2	1	92	71	21	9.10	7.00	2.10

## **Appendix H: West Point Guild Summary Information by Vegetation Type**

# Guild Summaries by Vegetation Groupings

Table H1. Vegetation types for West Point special use plots, by neotropical status.

Vegetation Type	Neotropical Status	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	Class A	1995	1	1	0	9	9	0	11	11	0	11.00	11.00	0
		1996	1	1	0	11	11	0	15	15	0	15.00	15.00	0
		1997	1	1	0	10	10	0	16	16	0	16.00	16.00	0
	Class B	1995	1	1	0	3	3	0	6	6	0	6.00	6.00	0
		1996	1	1	0	5	5	0	7	7	0	7.00	7.00	0
		1997	1	1	0	6	6	0	10	10	0	10.00	10.00	0
	Resident	1995	1	1	0	4	4	0	5	5	0	5.00	5.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	1	3	2	1	24	3	21	24.00	3.00	21.00
HEMLOCK-HARDWOOD SWAMP	Class A	1995	1	1	0	15	15	0	21	21	0	20.00	20.00	0
		1996	1	1	0	8	8	0	13	13	0	13.00	13.00	0
		1997	1	1	0	15	15	0	24	24	0	24.00	24.00	0
	Class B	1995	1	1	0	4	4	0	6	6	0	6.00	6.00	0
		1996	1	1	0	4	4	0	8	8	0	7.00	7.00	0
		1997	1	1	0	6	6	0	10	10	0	10.00	10.00	0
	Resident	1995	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	3	3	0	3	3	0	3.00	3.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	Class A	1995	1	1	0	9	9	0	18	18	0	18.00	18.00	0
		1996	1	1	0	13	13	0	16	16	0	16.00	16.00	0
		1997	1	1	0	17	17	0	24	24	0	24.00	24.00	0
	Class B	1995	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	0	5	5	0	7	7	0	7.00	7.00	0
	Resident	1995	1	1	1	4	3	1	4	3	1	4.00	3.00	1.00
		1996	1	1	0	4	4	0	5	5	0	4.00	4.00	0
		1997	1	1	0	4	4	0	5	5	0	5.00	5.00	0
OAK-HICKORY	Class A	1995	5	5	0	19	19	0	75	75	0	14.40	14.40	0
		1996	5	5	0	24	24	0	98	98	0	18.80	18.80	0
		1997	5	5	0	24	24	0	104	104	0	20.60	20.60	0
	Class B	1995	5	5	0	10	10	0	35	35	0	6.80	6.80	0
		1996	5	5	2	6	4	2	22	20	2	4.00	3.60	0.40
		1997	5	5	0	7	7	0	36	36	0	7.00	7.00	0
	Resident	1995	5	5	0	12	12	0	22	22	0	4.40	4.40	0
		1996	5	5	0	10	10	0	21	21	0	4.20	4.20	0
		1997	5	5	0	11	11	0	36	36	0	6.60	6.60	0
SUCCESSIONAL OLD FIELD	Class A	1992	2	2	0	15	15	0	29	29	0	14.00	14.00	0
		1995	2	2	0	19	19	0	43	43	0	21.50	21.50	0
		1996	2	2	1	18	17	1	33	31	2	16.50	15.50	1.00
		1997	2	2	0	27	27	0	71	71	0	35.00	35.00	0
	Class B	1992	2	2	1	9	9	1	42	41	1	20.50	20.00	0.50
		1995	2	2	0	10	10	0	24	24	0	11.50	11.50	0.00
		1996	2	2	1	8	8	1	28	23	5	12.00	9.50	2.50
		1997	2	2	0	9	9	0	37	37	0	18.00	18.00	0
	Resident	1992	2	2	0	6	6	0	26	26	0	12.50	12.50	0
		1995	2	2	0	8	8	0	11	11	0	5.00	5.00	0
		1996	2	2	1	7	6	1	15	8	7	7.50	4.00	3.50
		1997	2	2	0	10	10	0	73	73	0	36.50	36.50	0



Guild Summaries by Vegetation Groupings

Table H2. Vegetation types for West Point special use plots, by nest location.

Vegetation Type	Nest Location	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	GROUND	1995	1	1	0	4	4	0	7	7	0	7.00	7.00	0
		1996	1	1	0	5	5	0	8	8	0	8.00	8.00	0
		1997	1	1	1	6	5	1	30	9	21	30.00	9.00	21.00
	SHRUB	1995	1	1	0	3	3	0	3	3	0	3.00	3.00	0
		1996	1	1	0	4	4	0	6	6	0	6.00	6.00	0
		1997	1	1	0	3	3	0	4	4	0	4.00	4.00	0
	SNAG	1997	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	WOODY LOWER	1995	1	1	0	2	2	0	2	2	0	2.00	2.00	0
	CANOPY	1996	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1997	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	WOODY UPPER	1995	1	1	0	7	7	0	10	10	0	10.00	10.00	0
	CANOPY	1996	1	1	0	6	6	0	7	7	0	7.00	7.00	0
		1997	1	1	0	7	7	0	11	11	0	11.00	11.00	0
HEMLOCK-HARDWOOD SWAMP	GROUND	1995	1	1	0	7	7	0	11	11	0	11.00	11.00	0
		1996	1	1	0	4	4	0	10	10	0	9.00	9.00	0
		1997	1	1	0	5	5	0	10	10	0	10.00	10.00	0
	MAN-MADE STRUCTURE	1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SHRUB	1995	1	1	0	5	5	0	5	5	0	5.00	5.00	0
		1996	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1997	1	1	0	6	6	0	11	11	0	11.00	11.00	0
	SNAG	1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	WOODY LOWER	1995	1	1	0	5	5	0	8	8	0	7.00	7.00	0
	CANOPY	1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	4	4	0	4	4	0	4.00	4.00	0
	WOODY UPPER	1995	1	1	0	4	4	0	5	5	0	5.00	5.00	0
	CANOPY	1996	1	1	0	4	4	0	5	5	0	5.00	5.00	0
		1997	1	1	0	7	7	0	10	10	0	10.00	10.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	GROUND	1995	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1996	1	1	0	2	2	0	4	4	0	4.00	4.00	0
		1997	1	1	0	5	5	0	6	6	0	6.00	6.00	0
	REED	1997	1	1	0	1	1	0	3	3	0	3.00	3.00	0
	SHRUB	1995	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	5	5	0	8	8	0	8.00	8.00	0
	SNAG	1995	1	1	1	2	1	1	3	2	1	3.00	2.00	1.00
		1997	1	1	0	2	2	0	2	2	0	2.00	2.00	0
	WOODY LOWER	1995	1	1	0	5	5	0	7	7	0	7.00	7.00	0
	CANOPY	1996	1	1	0	8	8	0	8	8	0	8.00	8.00	0
		1997	1	1	0	4	4	0	5	5	0	5.00	5.00	0
	WOODY UPPER	1995	1	1	0	2	2	0	6	6	0	6.00	6.00	0
	CANOPY	1996	1	1	0	6	6	0	7	7	0	6.00	6.00	0
		1997	1	1	0	9	9	0	12	12	0	12.00	12.00	0
OAK-HICKORY	GROUND	1995	5	5	0	4	4	0	11	11	0	2.20	2.20	0
		1996	5	5	0	6	6	0	16	16	0	3.20	3.20	0
		1997	5	5	0	5	5	0	21	21	0	4.20	4.20	0
	MAN-MADE	1995	5	2	0	1	1	0	3	3	0	0.60	0.60	0
	STRUCTURE	1997	5	1	0	1	1	0	1	1	0	0.20	0.20	0

# Guild Summaries by Vegetation Groupings

Vegetation Type	Nest Location	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	REED	1996	5	0	1	1	0	1	1	0	1	0.20	0	0.20
	SHRUB	1995	5	4	0	5	5	0	11	11	0	2.20	2.20	0
		1996	5	5	0	7	7	0	22	22	0	4.40	4.40	0
		1997	5	5	0	8	8	0	24	24	0	4.80	4.80	0
	SNAG	1995	5	5	0	6	6	0	12	12	0	2.40	2.40	0
		1996	5	4	0	3	3	0	8	8	0	1.40	1.40	0
		1997	5	3	0	3	3	0	4	4	0	0.80	0.80	0
	WOODY LOWER CANOPY	1995	5	5	0	10	10	0	35	35	0	6.60	6.60	0
		1996	5	5	0	9	9	0	34	34	0	6.20	6.20	0
		1997	5	5	0	9	9	0	41	41	0	7.80	7.80	0
	WOODY UPPER CANOPY	1995	5	5	0	15	15	0	60	60	0	11.60	11.60	0
		1996	5	5	1	14	13	1	60	59	1	11.60	11.40	0.20
		1997	5	5	0	16	16	0	85	85	0	16.40	16.40	0
SUCCESSIONAL OLD FIELD	GROUND	1992	2	2	1	5	5	1	11	10	1	5.00	4.50	0.50
		1995	2	2	0	8	8	0	14	14	0	7.00	7.00	0
		1996	2	2	0	6	6	0	13	13	0	6.50	6.50	0
		1997	2	2	0	13	13	0	86	86	0	43.00	43.00	0
	MAN-MADE STRUCTURE	1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	REED	1992	2	1	0	1	1	0	16	16	0	8.00	8.00	0
		1995	2	1	0	1	1	0	6	6	0	3.00	3.00	0
		1996	2	1	0	1	1	0	3	3	0	1.00	1.00	0
		1997	2	1	0	1	1	0	5	5	0	2.00	2.00	0
	SHRUB	1992	2	2	0	6	6	0	16	16	0	8.00	8.00	0
		1995	2	2	0	8	8	0	21	21	0	10.50	10.50	0
		1996	2	2	0	8	8	0	15	15	0	7.00	7.00	0
		1997	2	2	0	9	9	0	40	40	0	20.00	20.00	0
	SNAG	1992	2	1	0	3	3	0	7	7	0	3.00	3.00	0
		1995	2	2	0	3	3	0	6	6	0	2.50	2.50	0
		1996	2	2	0	1	1	0	2	2	0	1.00	1.00	0
		1997	2	2	0	3	3	0	5	5	0	2.50	2.50	0
	WOODY LOWER CANOPY	1992	2	2	0	5	5	0	16	16	0	8.00	8.00	0
		1995	2	2	0	6	6	0	12	12	0	6.00	6.00	0
		1996	2	2	1	7	6	1	22	15	7	10.50	7.00	3.50
		1997	2	2	0	8	8	0	17	17	0	8.50	8.50	0
	WOODY UPPER CANOPY	1992	2	2	0	10	10	0	31	31	0	15.00	15.00	0
		1995	2	2	0	10	10	0	18	18	0	8.50	8.50	0
		1996	2	2	2	10	9	2	21	14	7	10.00	6.50	3.50
		1997	2	2	0	11	11	0	26	26	0	12.50	12.50	0

Guild Summaries by Vegetation Groupings

Table H3. Vegetation types for West Point special use plots, by nest type.

Vegetation Type	Nest Type	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	CAVITY	1995	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	4	4	0	4.00	4.00	0
	CUP	1995	1	1	0	11	11	0	16	16	0	16.00	16.00	0
		1996	1	1	0	13	13	0	19	19	0	19.00	19.00	0
		1997	1	1	0	13	13	0	19	19	0	19.00	19.00	0
	PARASITIC	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	PENDANT	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	PLATFORM	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SAUCER	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	3	3	0	3.00	3.00	0
	SCRAPE	1997	1	0	1	1	0	1	21	0	21	21.00	0.00	21.00
HEMLOCK-HARDWOOD SWAMP	CAVITY	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	3	3	0	3	3	0	3.00	3.00	0
	CUP	1995	1	1	0	16	16	0	24	24	0	23.00	23.00	0
		1996	1	1	0	9	9	0	17	17	0	16.00	16.00	0
		1997	1	1	0	18	18	0	29	29	0	29.00	29.00	0
	OVEN	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	PARASITIC	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SAUCER	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	SCRAPE	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	CAVITY	1995	1	1	1	3	2	1	4	3	1	4.00	3.00	1.00
		1996	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1997	1	1	0	4	4	0	5	5	0	5.00	5.00	0
	CUP	1995	1	1	0	11	11	0	18	18	0	18.00	18.00	0
		1996	1	1	0	14	14	0	19	19	0	18.00	18.00	0
		1997	1	1	0	18	18	0	25	25	0	25.00	25.00	0
	OVEN	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	PARASITIC	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	PENDANT	1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SAUCER	1995	1	1	0	1	1	0	3	3	0	3.00	3.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	3	3	0	3.00	3.00	0

# Guild Summaries by Vegetation Groupings

Vegetation Type	Nest Type	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
OAK-HICKORY	CAVITY	1995	5	5	0	11	11	0	24	24	0	4.80	4.80	0
		1996	5	5	0	8	8	0	26	26	0	5.00	5.00	0
		1997	5	5	0	8	8	0	29	29	0	5.20	5.20	0
	CUP	1995	5	5	0	23	23	0	77	77	0	14.80	14.80	0
		1996	5	5	1	25	24	1	83	82	1	16.00	15.80	0.20
		1997	5	5	0	29	29	0	99	99	0	19.60	19.60	0
	OVEN	1995	5	2	0	1	1	0	2	2	0	0.40	0.40	0
		1996	5	3	0	1	1	0	7	7	0	1.40	1.40	0
		1997	5	3	0	1	1	0	5	5	0	1.00	1.00	0
	PARASITIC	1995	5	4	0	1	1	0	6	6	0	1.20	1.20	0
		1996	5	2	0	1	1	0	2	2	0	0.40	0.40	0
		1997	5	5	0	1	1	0	11	11	0	2.00	2.00	0
	PENDANT	1995	5	5	0	1	1	0	9	9	0	1.80	1.80	0
		1996	5	5	0	2	2	0	9	9	0	1.80	1.80	0
		1997	5	5	0	1	1	0	15	15	0	3.00	3.00	0
	PLATFORM	1995	5	2	0	3	3	0	3	3	0	0.60	0.60	0
		1996	5	0	1	1	0	1	1	0	1	0.20	0	0.20
	SAUCER	1995	5	5	0	1	1	0	11	11	0	2.00	2.00	0
		1996	5	5	0	1	1	0	12	12	0	2.00	2.00	0
		1997	5	4	0	1	1	0	11	11	0	2.20	2.20	0
	SCRAPE	1996	5	1	0	1	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
SUCCESSIONAL OLD FIELD	CAVITY	1992	2	1	0	5	5	0	9	9	0	4.00	4.00	0
		1995	2	2	0	6	6	0	12	12	0	5.00	5.00	0
		1996	2	2	0	5	5	0	7	7	0	3.50	3.50	0
		1997	2	2	0	5	5	0	7	7	0	3.50	3.50	0
	CUP	1992	2	2	1	19	19	1	78	77	1	38.50	38.00	0.50
		1995	2	2	0	25	25	0	58	58	0	29.00	29.00	0
		1996	2	2	2	24	22	2	57	48	9	27.00	22.50	4.50
		1997	2	2	0	32	32	0	100	100	0	49.50	49.50	0
	OVEN	1995	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	1	1	0	3	3	0	1.50	1.50	0
	PARASITIC	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1996	2	1	1	1	1	1	8	3	5	3.50	1.00	2.50
		1997	2	2	0	1	1	0	3	3	0	1.50	1.50	0
	PENDANT	1995	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1996	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	2	0	1	1	0	4	4	0	2.00	2.00	0
	PLATFORM	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	2	2	0	0.50	0.50	0
	SAUCER	1992	2	2	0	2	2	0	4	4	0	2.00	2.00	0
		1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1996	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	SCRAPE	1992	2	1	0	2	2	0	4	4	0	1.50	1.50	0
		1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	4	4	0	60	60	0	30.00	30.00	0

Guild Summaries by Vegetation Groupings

Table H4. Vegetation types for West Point special use plots, by food type.

Vegetation Type	Food Type	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	AQUATIC INVERTS	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	FRUIT	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	GREENS	1997	1	0	1	1	0	1	21	0	21	21.00	0	21.00
	INSECTS	1995	1	1	0	14	14	0	19	19	0	19.00	19.00	0
		1996	1	1	0	16	16	0	23	23	0	23.00	23.00	0
		1997	1	1	0	17	17	0	28	28	0	28.00	28.00	0
HEMLOCK-HARDWOOD SWAMP	AQUATIC INVERTS	1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	FRUIT	1997	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	GREENS	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	INSECTS	1995	1	1	0	20	20	0	28	28	0	27.00	27.00	0
		1996	1	1	0	14	14	0	24	24	0	23.00	23.00	0
		1997	1	1	0	22	22	0	34	34	0	34.00	34.00	0
	SEEDS	1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	FRUIT	1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	INSECTS	1995	1	1	0	14	14	0	24	24	0	24.00	24.00	0
		1996	1	1	0	18	18	0	22	22	0	21.00	21.00	0
		1997	1	1	0	25	25	0	35	35	0	35.00	35.00	0
	SEEDS	1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
	SMALL MAMMALS	1995	1	0	1	1	0	1	1	0	1	1.00	0	1.00
		1996	1	0	1	1	0	1	1	0	1	1.00	0	1.00
OAK-HICKORY	AQUATIC INVERTS	1996	5	1	0	1	1	0	1	1	0	0.20	0.20	0
	FRUIT	1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
	GREENS	1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
	INSECTS	1995	5	5	0	38	38	0	128	128	0	24.80	24.80	0
		1996	5	5	1	37	36	1	138	137	1	26.40	26.20	0.20
		1997	5	5	0	40	40	0	164	164	0	31.80	31.80	0
	SEEDS	1995	5	2	0	1	1	0	2	2	0	0.40	0.40	0
		1996	5	1	0	1	1	0	1	1	0	0.20	0.20	0
	SMALL MAMMALS	1995	5	2	0	2	2	0	2	2	0	0.40	0.40	0
		1996	5	0	1	1	0	1	1	0	1	0.20	0	0.20
SUCCESSIONAL OLD FIELD	AQUATIC INVERTS	1997	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	GREENS	1997	2	1	0	1	1	0	57	57	0	28.50	28.50	0
	INSECTS	1992	2	2	1	26	26	1	90	89	1	44.00	43.50	0.50
		1995	2	2	0	36	36	0	75	75	0	36.50	36.50	0
		1996	2	2	2	32	30	3	74	60	14	35.50	28.50	7.00
		1997	2	2	0	40	40	0	109	109	0	54.00	54.00	0
	SEEDS	1992	2	2	0	3	3	0	5	5	0	2.00	2.00	0
		1995	2	1	0	1	1	0	3	3	0	1.50	1.50	0
		1996	2	1	0	1	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	3	3	0	11	11	0	5.50	5.50	0
	SMALL MAMMALS	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1997	2	1	0	1	1	0	2	2	0	0.50	0.50	0

# Guild Summaries by Vegetation Groupings

Table H5. Vegetation types for West Point special use plots, by feeding substrate.

Vegetation Type	Substrate	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	AIR	1995	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1996	1	1	0	4	4	0	6	6	0	6.00	6.00	0
		1997	1	1	0	5	5	0	10	10	0	10.00	10.00	0
	BARK	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	FOLIAGE	1995	1	1	0	5	5	0	6	6	0	6.00	6.00	0
		1996	1	1	0	5	5	0	5	5	0	5.00	5.00	0
		1997	1	1	0	3	3	0	4	4	0	4.00	4.00	0
	GROUND	1995	1	1	0	7	7	0	10	10	0	10.00	10.00	0
		1996	1	1	0	8	8	0	12	12	0	12.00	12.00	0
		1997	1	1	0	9	9	0	14	14	0	14.00	14.00	0
	WATER	1997	1	0	1	1	0	1	21	0	21	21.00	0	21.00
HEMLOCK-HARDWOOD SWAMP	AIR	1995	1	1	0	4	4	0	4	4	0	4.00	4.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	0	7	7	0	10	10	0	10.00	10.00	0
	BARK	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	2	2	0	4	4	0	4.00	4.00	0
		1997	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	FOLIAGE	1995	1	1	0	7	7	0	9	9	0	8.00	8.00	0
		1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	5	5	0	8	8	0	8.00	8.00	0
	GROUND	1995	1	1	0	9	9	0	14	14	0	14.00	14.00	0
		1996	1	1	0	8	8	0	14	14	0	13.00	13.00	0
		1997	1	1	0	10	10	0	16	16	0	16.00	16.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	AIR	1995	1	1	0	4	4	0	8	8	0	8.00	8.00	0
		1996	1	1	0	5	5	0	6	6	0	6.00	6.00	0
		1997	1	1	0	5	5	0	8	8	0	8.00	8.00	0
	BARK	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	3	3	0	3	3	0	3.00	3.00	0
	FOLIAGE	1995	1	1	0	3	3	0	6	6	0	6.00	6.00	0
		1996	1	1	0	7	7	0	8	8	0	8.00	8.00	0
		1997	1	1	0	10	10	0	13	13	0	13.00	13.00	0
	GROUND	1995	1	1	1	7	6	1	9	8	1	9.00	8.00	1.00
		1996	1	1	0	7	7	0	10	10	0	9.00	9.00	0
		1997	1	1	0	8	8	0	12	12	0	12.00	12.00	0
OAK-HICKORY	AIR	1995	5	5	0	7	7	0	40	40	0	7.60	7.60	0
		1996	5	5	0	5	5	0	41	41	0	7.60	7.60	0
		1997	5	5	0	6	6	0	47	47	0	9.40	9.40	0
	BARK	1995	5	5	0	7	7	0	13	13	0	2.60	2.60	0
		1996	5	5	0	5	5	0	9	9	0	1.80	1.80	0
		1997	5	5	0	5	5	0	16	16	0	2.80	2.80	0
	FOLIAGE	1995	5	5	0	12	12	0	28	28	0	5.40	5.40	0
		1996	5	5	0	14	14	0	39	39	0	7.60	7.60	0
		1997	5	5	0	17	17	0	50	50	0	9.60	9.60	0
	GROUND	1995	5	5	0	15	15	0	51	51	0	10.00	10.00	0
		1996	5	5	2	16	14	2	52	50	2	10.00	9.60	0.40
		1997	5	5	0	13	13	0	57	57	0	11.20	11.20	0
	WATER	1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0

# Guild Summaries by Vegetation Groupings

Vegetation Type	Substrate	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
SUCCESSIONAL OLD FIELD	AIR	1992	2	1	0	5	5	0	9	9	0	4.50	4.50	0
		1995	2	2	0	5	5	0	9	9	0	4.50	4.50	0
		1996	2	1	0	4	4	0	7	7	0	3.50	3.50	0
		1997	2	2	0	7	7	0	15	15	0	7.50	7.50	0
	BARK	1992	2	1	0	3	3	0	3	3	0	1.50	1.50	0
		1995	2	1	0	4	4	0	5	5	0	2.00	2.00	0
		1996	2	1	0	2	2	0	2	2	0	1.00	1.00	0
		1997	2	2	0	4	4	0	4	4	0	2.00	2.00	0
	FOLIAGE	1992	2	2	0	7	7	0	16	16	0	7.50	7.50	0
		1995	2	2	0	12	12	0	31	31	0	15.50	15.50	0
		1996	2	2	1	10	9	1	17	15	2	8.00	7.00	1.00
		1997	2	2	0	13	13	0	43	43	0	21.50	21.50	0
	GROUND	1992	2	2	1	14	14	1	67	66	1	33.00	32.50	0.50
		1995	2	2	0	16	16	0	33	33	0	16.00	16.00	0
		1996	2	2	1	17	16	2	50	38	12	23.50	17.50	6.00
		1997	2	2	0	20	20	0	61	61	0	29.50	29.50	0
	WATER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	2	2	0	58	58	0	29.00	29.00	0

Guild Summaries by Vegetation Groupings

Table H6. Vegetation types for West Point special use plots, by foraging technique.

Vegetation Type	Technique	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	BARK GLEANER	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	FOLIAGE GLEANER	1995	1	1	0	5	5	0	6	6	0	6.00	6.00	0
		1996	1	1	0	4	4	0	4	4	0	4.00	4.00	0
		1997	1	1	0	3	3	0	4	4	0	4.00	4.00	0
	GROUND GLEANER	1995	1	1	0	7	7	0	10	10	0	10.00	10.00	0
		1996	1	1	0	8	8	0	12	12	0	12.00	12.00	0
		1997	1	1	0	9	9	0	14	14	0	14.00	14.00	0
	HAWKER	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	0	3	3	0	5	5	0	5.00	5.00	0
	HOVER GLEANER	1995	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	0	2	2	0	5	5	0	5.00	5.00	0
	SCAVENGER	1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SURFACE DIPS	1997	1	0	1	1	0	1	21	0	21	21.00	0	21.00
HEMLOCK-HARDWOOD SWAMP	BARK GLEANER	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1996	1	1	0	2	2	0	4	4	0	4.00	4.00	0
		1997	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	FOLIAGE BROWSER	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	FOLIAGE GLEANER	1995	1	1	0	6	6	0	8	8	0	7.00	7.00	0
		1996	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1997	1	1	0	5	5	0	8	8	0	8.00	8.00	0
	GROUND GLEANER	1995	1	1	0	9	9	0	14	14	0	14.00	14.00	0
		1996	1	1	0	8	8	0	14	14	0	13.00	13.00	0
		1997	1	1	0	10	10	0	16	16	0	16.00	16.00	0
	HAWKER	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1997	1	1	0	4	4	0	4	4	0	4.00	4.00	0
	HOVER GLEANER	1995	1	1	0	3	3	0	3	3	0	3.00	3.00	0
		1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
		1997	1	1	0	3	3	0	6	6	0	6.00	6.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	BARK GLEANER	1995	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	3	3	0	3	3	0	3.00	3.00	0
	FOLIAGE GLEANER	1995	1	1	0	3	3	0	6	6	0	6.00	6.00	0
		1996	1	1	0	7	7	0	8	8	0	8.00	8.00	0
		1997	1	1	0	10	10	0	13	13	0	13.00	13.00	0
	GROUND GLEANER	1995	1	1	0	6	6	0	8	8	0	8.00	8.00	0
		1996	1	1	0	6	6	0	8	8	0	8.00	8.00	0
		1997	1	1	0	8	8	0	12	12	0	12.00	12.00	0
	HAWKER	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2	2	0	2.00	2.00	0
	HOVER GLEANER	1995	1	1	0	3	3	0	7	7	0	7.00	7.00	0
		1996	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1997	1	1	0	3	3	0	6	6	0	6.00	6.00	0
	LOW PATROL	1995	1	0	1	1	0	1	1	0	1	1.00	0	1.00
	SCAVENGER	1996	1	1	0	1	1	0	2	2	0	1.00	1.00	0



Guild Summaries by Vegetation Groupings

Vegetation Type	Technique	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
OAK-HICKORY	BARK GLEANER	1995	5	5	0	7	7	0	13	13	0	2.60	2.60	0
		1996	5	5	0	5	5	0	9	9	0	1.80	1.80	0
		1997	5	5	0	5	5	0	16	16	0	2.80	2.80	0
	FOLIAGE GLEANER	1995	5	5	0	11	11	0	27	27	0	5.20	5.20	0
		1996	5	5	0	14	14	0	39	39	0	7.60	7.60	0
		1997	5	5	0	17	17	0	50	50	0	9.60	9.60	0
	GROUND GLEANER	1995	5	5	0	12	12	0	47	47	0	9.20	9.20	0
		1996	5	5	1	14	13	1	47	46	1	9.00	8.80	0.20
		1997	5	5	0	12	12	0	55	55	0	10.80	10.80	0
	HAWKER	1995	5	5	0	4	4	0	21	21	0	4.00	4.00	0
		1996	5	5	0	2	2	0	11	11	0	2.20	2.20	0
		1997	5	5	0	3	3	0	18	18	0	3.60	3.60	0
	HIGH PATROL	1995	5	1	0	1	1	0	1	1	0	0.20	0.20	0
		1996	5	0	1	1	0	1	1	0	1	0.20	0	0.20
	HOVER GLEANER	1995	5	5	0	3	3	0	19	19	0	3.60	3.60	0
		1996	5	5	0	3	3	0	30	30	0	5.40	5.40	0
		1997	5	5	0	3	3	0	29	29	0	5.80	5.80	0
	LOW PATROL	1995	5	1	0	1	1	0	1	1	0	0.20	0.20	0
	SCAVENGER	1995	5	2	0	2	2	0	3	3	0	0.60	0.60	0
		1996	5	1	0	1	1	0	4	4	0	0.80	0.80	0
		1997	5	2	0	1	1	0	2	2	0	0.40	0.40	0
	SURFACE DIPS	1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
SUCCESSIONAL	AERIAL FORAGING	1997	2	1	0	1	1	0	2	2	0	1.00	1.00	0
OLD FIELD	BARK GLEANER	1992	2	1	0	3	3	0	3	3	0	1.50	1.50	0
		1995	2	1	0	4	4	0	5	5	0	2.00	2.00	0
		1996	2	1	0	2	2	0	2	2	0	1.00	1.00	0
		1997	2	2	0	4	4	0	4	4	0	2.00	2.00	0
	DABBLER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	FOLIAGE GLEANER	1992	2	2	0	6	6	0	15	15	0	7.00	7.00	0
		1995	2	2	0	11	11	0	30	30	0	15.00	15.00	0
		1996	2	2	1	10	9	1	17	15	2	8.00	7.00	1.00
		1997	2	2	0	13	13	0	43	43	0	21.50	21.50	0
	GROUND GLEANER	1992	2	2	1	12	12	1	47	46	1	23.00	22.50	0.50
		1995	2	2	0	15	15	0	31	31	0	15.00	15.00	0
		1996	2	2	1	16	15	2	49	37	12	23.00	17.00	6.00
		1997	2	2	0	18	18	0	56	56	0	27.50	27.50	0
	HAWKER	1992	2	1	0	2	2	0	2	2	0	1.00	1.00	0
		1995	2	2	0	3	3	0	6	6	0	3.00	3.00	0
		1996	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1997	2	2	0	3	3	0	4	4	0	2.00	2.00	0
	HOVER GLEANER	1992	2	1	0	3	3	0	7	7	0	3.50	3.50	0
		1995	2	2	0	2	2	0	3	3	0	1.50	1.50	0
		1996	2	1	0	3	3	0	5	5	0	2.50	2.50	0
		1997	2	1	0	3	3	0	9	9	0	4.50	4.50	0
	LOW PATROL	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
	SCAVENGER	1992	2	1	0	2	2	0	19	19	0	9.50	9.50	0
		1995	2	1	0	2	2	0	3	3	0	1.50	1.50	0
		1996	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	3	3	0	1.50	1.50	0

# Guild Summaries by Vegetation Groupings

Vegetation Type	Technique	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
	SURFACE DIPS	1997	2	1	0	1	1	0	57	57	0	28.50	28.50	0
	SWOOPER	1997	2	1	0	1	1	0	2	2	0	0.50	0.50	0

Guild Summaries by Vegetation Groupings

Table H7. Vegetation types for West Point special use plots, by habitat type.

Vegetation Type	Habitat	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
BURN BARREN	FOREST	1995	1	1	0	9	9	0	12	12	0	12.00	12.00	0
		1996	1	1	0	9	9	0	12	12	0	12.00	12.00	0
		1997	1	1	0	10	10	0	15	15	0	15.00	15.00	0
	FOREST EDGE	1995	1	1	0	3	3	0	5	5	0	5.00	5.00	0
		1996	1	1	0	5	5	0	8	8	0	8.00	8.00	0
		1997	1	1	0	6	6	0	11	11	0	11.00	11.00	0
	RIPARIAN	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	SHRUBLAND	1995	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1996	1	1	0	3	3	0	4	4	0	4.00	4.00	0
		1997	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	SWAMP/MARSH	1997	1	0	1	1	0	1	21	0	21	21.00	0	21.00
HEMLOCK-HARDWOOD SWAMP	FOREST	1995	1	1	0	15	15	0	21	21	0	20.00	20.00	0
		1996	1	1	0	10	10	0	16	16	0	16.00	16.00	0
		1997	1	1	0	15	15	0	22	22	0	22.00	22.00	0
	FOREST EDGE	1995	1	1	0	2	2	0	4	4	0	4.00	4.00	0
		1996	1	1	0	3	3	0	6	6	0	5.00	5.00	0
		1997	1	1	0	4	4	0	7	7	0	7.00	7.00	0
	GRASSLAND	1997	1	1	0	1	1	0	1	1	0	1.00	1.00	0
	RIPARIAN	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2	2	0	2.00	2.00	0
	SHRUBLAND	1995	1	1	0	3	3	0	3	3	0	3.00	3.00	0
		1996	1	1	0	1	1	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	5	5	0	5.00	5.00	0
HEMLOCK-NORTHERN HARDWOOD FOREST	FOREST	1995	1	1	1	11	10	1	21	20	1	21.00	20.00	1.00
		1996	1	1	0	13	13	0	17	17	0	16.00	16.00	0
		1997	1	1	0	17	17	0	23	23	0	23.00	23.00	0
	FOREST EDGE	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1997	1	1	0	4	4	0	5	5	0	5.00	5.00	0
	GRASSLAND	1996	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	RIPARIAN	1995	1	1	0	1	1	0	1	1	0	1.00	1.00	0
		1996	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	2	2	0	2.00	2.00	0
	SHRUBLAND	1995	1	1	0	2	2	0	2	2	0	2.00	2.00	0
		1997	1	1	0	2	2	0	3	3	0	3.00	3.00	0
	SWAMP/MARSH	1997	1	1	0	1	1	0	3	3	0	3.00	3.00	0
OAK-HICKORY	FOREST	1995	5	5	0	31	31	0	96	96	0	18.40	18.40	0
		1996	5	5	1	28	27	1	113	112	1	21.40	21.20	0.20
		1997	5	5	0	29	29	0	121	121	0	23.40	23.40	0
	FOREST EDGE	1995	5	5	0	5	5	0	25	25	0	5.00	5.00	0
		1996	5	5	0	5	5	0	20	20	0	4.00	4.00	0
		1997	5	5	0	5	5	0	39	39	0	7.60	7.60	0
	GRASSLAND	1995	5	3	0	2	2	0	6	6	0	1.20	1.20	0
		1996	5	1	0	1	1	0	1	1	0	0.20	0.20	0
		1997	5	1	0	1	1	0	1	1	0	0.20	0.20	0

Guild Summaries by Vegetation Groupings

Vegetation Type	Habitat	Year	Total Plots	Site Plots	FO Plots	Total Spp	Site Spp	FO Spp	Total Birds	Site Birds	FO Birds	Ave Tot Birds	Ave Site Birds	Ave FO Birds
SUCCESSIONAL OLD FIELD	RIPARIAN	1995	5	2	0	1	1	0	3	3	0	0.60	0.60	0
		1996	5	2	0	2	2	0	2	2	0	0.40	0.40	0
		1997	5	2	0	2	2	0	3	3	0	0.60	0.60	0
	SHRUBLAND	1995	5	1	0	2	2	0	2	2	0	0.40	0.40	0
		1996	5	2	0	3	3	0	4	4	0	0.80	0.80	0
		1997	5	4	0	4	4	0	6	6	0	1.20	1.20	0
	SWAMP/MARSH	1996	5	0	1	1	0	1	1	0	1	0.20	0	0.20
		1997	5	1	0	1	1	0	6	6	0	1.20	1.20	0
	FOREST OLD FIELD	1992	2	2	0	18	18	0	55	55	0	26.50	26.50	0
		1995	2	2	0	20	20	0	36	36	0	17.00	17.00	0
		1996	2	2	1	18	17	1	35	33	2	17.00	16.00	1.00
		1997	2	2	0	22	22	0	51	51	0	25.00	25.00	0
	FOREST EDGE	1992	2	2	0	4	4	0	8	8	0	4.00	4.00	0
		1995	2	2	0	6	6	0	15	15	0	7.50	7.50	0
		1996	2	2	1	4	4	1	13	8	5	6.00	3.50	2.50
		1997	2	2	0	6	6	0	18	18	0	9.00	9.00	0
	FRESHWATER	1992	2	1	0	1	1	0	2	2	0	0.50	0.50	0
		1997	2	1	0	2	2	0	3	3	0	1.50	1.50	0
	GRASSLAND	1992	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1995	2	1	0	1	1	0	3	3	0	1.50	1.50	0
		1996	2	1	1	2	1	1	9	2	7	4.00	0.50	3.50
		1997	2	1	0	3	3	0	11	11	0	5.50	5.50	0
	RIPARIAN	1992	2	1	1	2	2	1	9	8	1	4.50	4.00	0.50
		1995	2	2	0	3	3	0	6	6	0	3.00	3.00	0
		1996	2	2	0	2	2	0	8	8	0	4.00	4.00	0
		1997	2	2	0	4	4	0	14	14	0	7.00	7.00	0
	SHORELINE	1992	2	1	0	1	1	0	2	2	0	1.00	1.00	0
		1995	2	1	0	1	1	0	1	1	0	0.50	0.50	0
		1997	2	1	0	1	1	0	1	1	0	0.50	0.50	0
	SHRUBLAND	1992	2	2	0	2	2	0	4	4	0	2.00	2.00	0
		1995	2	1	0	5	5	0	11	11	0	5.50	5.50	0
		1996	2	1	0	6	6	0	8	8	0	4.00	4.00	0
		1997	2	2	0	6	6	0	21	21	0	10.50	10.50	0
	SWAMP/MARSH	1992	2	1	0	1	1	0	16	16	0	8.00	8.00	0
		1995	2	1	0	1	1	0	6	6	0	3.00	3.00	0
		1996	2	1	0	1	1	0	3	3	0	1.00	1.00	0
		1997	2	1	0	2	2	0	62	62	0	30.50	30.50	0

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